Milton-Freewater Water Control District

System Wide Improvement Framework Plan

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Engineering
Surveying
Natural Resources

anderson perry & associates, inc.
Walla Walla, WA La Grande, OR

SYSTEM WIDE IMPROVEMENT FRAMEWORK PLAN

FOR

MILTON-FREEWATER LEVEE

WALLA WALLA RIVER
UMATILLA COUNTY, OREGON

FEBRUARY 2013

REGISTERED PROFESSIONAL ENGINEER
74069PE
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NOV. 12, 2003
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The Milton-Freewater Water Control District has approved this System Wide Improvement Framework Plan for submittal.

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Signature and Title Date

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Civil Engineers

La Grande, Oregon
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System Wide Improvement Framework Plan

Introduction

The Milton-Freewater Water Control District (MFWCD) is the sponsor for the Milton-Freewater levee systems. In 2006, the Milton-Freewater levee systems were rated "Unacceptable"; they became inactive and were no longer eligible for rehabilitation assistance in the United States Army Corps of Engineers (USACE) Public Law 84-99 Rehabilitation and Inspection Program (RIP). MFWCD submitted a System Wide Improvement Framework (SWIF) letter of intent to USACE on December 14, 2011. This letter of intent was accepted by USACE on January 13, 2012. The Milton-Freewater levee systems were granted two years of eligibility in the RIP while a SWIF plan was developed. This plan is intended to fulfill the SWIF plan requirements and outline the schedule and approach for the Milton-Freewater levee systems.

System Identification and Description

The levee systems to be covered by the SWIF plan are Milton Freewater Levee Systems P, Q, R, and S as defined by the March 31, 2010 USACE Periodic Inspection (PI) Report and as shown in Figure 1. The USACE originally designed and contracted for the levee systems to be built between 1949 and 1952 and reconstructed portions following flooding in 1965. The levees extend for approximately 5.5 river miles and consist of four discontinuous segments having a combined total length of 9.43 miles that tie into natural high terrain.

TABLE 1
Milton Freewater Levee System Identification

2010 USACE PI Inspection System Name	National Levee Database Segment	National Levee Database Segment ID	General Description	Length (miles)
System S	MF-1	6004000028	Left Bank	5.25
System P	MF-2	6004000029	Right Bank, 15th Avenue Bridge Vicinity and Upstream	1.64
System Q	MF-3	6004000030	Right Bank Cemetery Bridge Upstream to High Ground	0.24
System R	MF-4	6004000031	Right Bank Nursery Bridge to McCoy (Tum-A-Lum) Bridge	2.30

The levee systems protect significant portions of the City of Milton-Freewater as well as residential, commercial, agricultural, and industrial areas of Umatilla County.

System Deficiencies

The 2010 PI reports for all four levee systems documented 228 deficiencies. Levee embankment deficiencies are summarized in Table 2 and include unwanted vegetation, encroachments and access issues, slope stability, erosion/bank caving, riprap revetments, and bank protection deficiencies. Floodwalls on System S had a closure structure with boards that needed to be replaced. Interior drainage structures needed maintenance, including removal of vegetation and obstructions, cleaning of culvert and discharge pipes, and repairs on sluice, slide, and flap gates. The flood risk reduction channel had unwanted vegetation, shoaling or sediment deposition, erosion, concrete deterioration, and riprap revetment on banks needing to be replaced.

TABLE 2
Summary of MFWCD Levee Deficiencies

Inspection Item	System Deficiencies			
	System P	System Q	System R	System S
Levee Embankments				
Unwanted Vegetation	X	X	X	X
Encroachments	X	X	X	X
Slope Stability	X		X	X
Erosion/Bank Caving			X	
Riprap Revetments and Bank Protection	X	X	X	
Floodwalls				
Unwanted Vegetation				X
Closure Structures				X
Scour Hole				X
Interior Drainage System				
Vegetation and Obstructions	X		X	X
Culverts/Discharge Pipes	X		X	X
Sluice/Slide Gates	X			X
Flap Gates/Flap Valves/Pinch Valves	X		X	X
Flood Damage Reduction Channels				
Unwanted Vegetation	X	X	X	X
Shoaling or Sediment Deposition	X	X	X	X
Erosion	X		X	X
Concrete Surfaces Deterioration			X	X
Foundation of Concrete Structures			X	X
Riprap Revetments and Bank Protection	X	X	X	X

The identified deficiencies may not all be caused by a lack of maintenance. USACE Engineering Regulation Modifications to Completed Projects (ER 1165-2-119, 1982) states that a design deficiency usually indicates the project development failed to properly account for the natural river processes and project associated changes to those processes. ER 1165-2-119 defines a design deficiency as a flaw in the Federal design of a project that significantly interferes with the project's authorized purposes or full usefulness as intended by Congress at the time of original project development. Based on the criteria in ER 1165-2-119, corrective action could be recommended and authorized under existing project authority, if certain conditions exist.

The Walla Walla River channel has continued to degrade even after the 1965 repairs which included installing larger riprap and a drop structure downstream of Nursery Bridge. On the Walla Walla River, there is severe channel degradation downstream of Nursery Bridge and moderate channel degradation in the vicinity of Couse Creek Road Bridge. In both locations, MFWCD has or will expend funds to extend bank erosion protection to cover the immediate levee safety concern related to bank erosion. However, channel stability remains a concern as a result of a potential design deficiency.

Maintenance deficiencies are actively being corrected and are discussed in the following paragraphs.

Progress-Correcting Deficiencies

There has been much progress to date in addressing the Milton-Freewater levee systems' deficiencies. Many of the deficiencies have been resolved by MFWCD maintenance activities conducted since the 2010 PI was completed. The following is a list of completed projects:

- Eighteen culverts have been cleaned and a television camera inspected. Flap gates have been repaired. Obstructions at the culvert entrances and exits have been removed.
- Eight culverts and irrigation diversions no longer in service have been filled with concrete and decommissioned.
- The floodwall closure structure at Marie Dorian Park has been repaired and deteriorated wooden gates have been replaced.
- Deteriorated concrete on the floor and sloping face of the Nursery Bridge drop structure has been reconstructed.

- Riprap protection has been installed downstream of Nursery Bridge on the left bank for a distance of 3,000 feet. Installing toe rock deeper to protect the left bank was required since the channel bottom degraded more than 16 feet. Since the Walla Walla River is on the right bank, this work was accomplished outside the ordinary high water.

- Missing riprap was replaced immediately downstream from the Nursery Bridge drop structure end sill.

- Survey cross sections of the 5.5 miles of river channel were obtained and a Hydrologic Engineering Centers River Analysis System flood model was created to evaluate hydraulic flood capacity (CA Good, 2011).

- Vegetation on and within 15 feet on each side of the levee crown has been removed to provide access and visibility for inspection of the embankment slope for the entire levee system.

- Eighty-four landowners were notified regarding encroachments. An application process was developed to inform landowners of these encroachments and restrict future encroachments to ensure that efficient operation and maintenance would be achieved.

- Levee access gates have been installed by MFWCD to control traffic on the levee.

USACE inspected the levee systems on December 22 and 23, 2011 upon receiving the SWIF letter of intent from the MFWCD. The summary letter for this recent levee inspection is included as Attachment 1 and confirms the progress made to date in correcting levee deficiencies.

In 2012, after submittal of the SWIF letter of intent, the MFWCD continued to make progress by correcting deficiencies related to channel capacity and repairing damaged riprap in the vicinity of Couse Creek Road Bridge after submitting plans to USACE for review.

Channel Capacity

The flood channel was constructed to carry a design flow of 12,000 cubic feet per second (cfs) with a minimum of 2 feet of freeboard during the 1967 rehabilitation conducted by the USACE. This flow is approximately equivalent to the 140-year recurrence interval flood.

In 2011, a consultant hired by the MFWCD performed a hydraulic study to determine the existing channel capacity. The hydraulic model was developed to be conservative using a Manning's n value of 0.036 for open water and over bank flow Manning's n values ranging from 0.060 to 0.090. The Manning's n values are conservative for the present and future predicted levee vegetation conditions. A copy of the hydraulic model was previously provided to the Walla Walla District office for review.

Portions of the levee systems were identified as having insufficient channel capacity based on the original design criteria. The conservative hydraulic model indicated that the 15th Avenue Bridge was a constriction and the flood channel had aggraded in the bridge's vicinity. Additionally, the flood model indicated a reduced hydraulic capacity from the 15th Avenue Bridge downstream to Nursery Bridge. For the sections of the levee where the hydraulic model indicated that the freeboard was less than the minimum 2 feet at 12,000 cfs, earthwork to raise these levee sections was proposed. Plans for this work were submitted to the USACE Walla Walla District office for approval.

To re-establish channel capacity at 15th Avenue Bridge, the cross-sectional area beneath the bridge was increased to remove the channel constriction and provide the minimum 2 feet of freeboard at 12,000 cfs. The riprap embankment riverside slope beneath the bridge was removed and replaced by a floodwall beneath the bridge. Plans for this work were submitted to the USACE Walla Walla District office for approval under Section 408. The construction work was completed in December 2012.

Floodwalls upstream and downstream of Cemetery Bridge were found to be less than the minimum required freeboard. The top of the existing floodwall was raised 1 to 2 feet vertically to meet the minimum freeboard requirements. Plans for this work were submitted to the USACE Walla Walla District office for approval under Section 408. The construction work to raise the floodwall was completed in December 2012.

Riprap Repair in the Couse Creek Road Bridge Vicinity

In 1996, USACE removed a concrete grade control structure upstream of Couse Creek Road Bridge. The structure was causing channel degradation downstream and creating a fish passage barrier. Since removal of the structure, the channel degradation has proceeded to move upstream. The existing riprap erosion protection layer was damaged in the vicinity of Couse Creek Road Bridge for a distance of approximately 800 feet and at the beginning of the levee system. Riprap was installed to provide erosion

protection on the right bank at these locations. The Couse Creek Road Bridge vicinity riprap repair was completed during the 2012 in-water work window.

Proposed Levee Improvements

The MFWCD has made many levee improvements to correct levee maintenance deficiencies and has also placed riprap to provide levee safety in areas where design deficiencies resulted in exposed levee embankments. MFWCD is proposing to place riprap on the right embankment downstream of Nursery Bridge in 2014. As in the past, proposed modifications to the MFWCD flood project follow policy guidance under Section 408 by submitting plans and specifications to USACE for review prior to construction.

Riprap Toe Repair

Due to channel degradation of up to 16 feet, the existing riprap erosion protection layer has been observed to be damaged downstream of Nursery Bridge on the right bank for a distance of approximately 3,000 feet. Riprap will be placed to extend the embankment erosion protection layer to 4 feet below the current channel thalweg.

In March 2011, a 404 permit was received for the riprap repair projects. In addition, 401 water quality certification was received from the Oregon Department of Environmental Quality (ODEQ) for this riprap repair work.

Design plans and documents were prepared and submitted to USACE in 2011 for placing riprap on the right bank. The right bank riprap repair downstream of Nursery Bridge was originally planned for the summer of 2012, but has been postponed to allow consideration of improving channel stability and reducing or eliminating headcutting in this reach of the river. The main concern is that extending the right bank riprap deeper will encourage accelerated channel degradation and could further impact fish passage at the new east bank fish ladder. The work on the right bank levee downstream from Nursery Bridge is expected to proceed during the summer of 2014 regardless of funding for the proposed channel stability improvements. If funding for channel stability cannot be secured, the MFWCD will move ahead with right bank riprap erosion repair in 2014. The repair of right bank riprap in 2014 is important since project funding will sunset or expire before the in-stream work window in 2015.

Vegetation

Vegetation along the Walla Walla River is important to ensure that Endangered Species Act (ESA) and Clean Water Act (CWA) requirements are being addressed. Removing vegetation could create impacts to Middle Columbia River steelhead (Oncorhynchus mykiss), Columbia River Basin bull trout (Salvelinus confluentus), and designated critical habitats. Mid-Columbia River Chinook salmon (Oncorhynchus tshawytscha) are not listed under the ESA. However, impacts to Magnuson-Stevens Fishery Conservation and Management Act designated Essential Fish Habitat (EFH) are possible. The Walla Walla River is listed for temperature on the ODEQ 303d list under the CWA. ODEQ has been actively working to implement a strategy to cool stream temperatures by increasing shade through large woody vegetation.

At the time the levee systems were constructed, species and habitat concerns were not considered. The MFWCD has no desire to negatively impact critical habitat, but at the same time must assure project integrity is maintained to protect public safety. The desire to meet USACE standards is complicated by the competing needs of ESA listed species and CWA water quality total maximum daily loads in the vicinity of the levee systems. The levee vegetation is currently not compatible with the USACE ETL 1110-2-571 standard. The MFWCD will follow submittal requirements of the DRAFT or final USACE policy guidance letter in submitting a levee vegetation variance. The levee vegetation variance will incorporate adjustments made during field inspections over the next 10 years that will assure out-of-compliance vegetation is not detrimental to the levee systems.

Vegetation Option Analysis

Several options were evaluated regarding vegetation within the levee systems including the following:

1) Do Nothing
2) Levee Setback
3) High Velocity Channel with Existing Active Channel
4) Overbuilt Levee Segments
5) Manage Vegetation and Seek Variance

Do Nothing

This option would involve allowing the levee to become fully vegetated and neglecting the levee maintenance. Lack of maintenance would result in the levee systems becoming inactive in the USACE RIP program. Homes, property, infrastructure, and lives would be at risk of large flood events. Flood insurance would be required for landowners with mortgages. Federal funds likely would not be available for projects in the flood zone or the City of Milton-Freewater. This alternative is unacceptable because of the risk to human life and the impacts to the City of Milton-Freewater.

Levee Setback

Levee setbacks have been considered twice in the last 15 years, once by USACE in 1997 and a second time by the Walla Walla Basin Watershed Council (WWBWC) through an Environmental Protection Agency (EPA) 319 grant study in 2011. Both studies identified small segments where it might be possible to set back segments of the levee. However, the studies did not agree on the cost of levee setbacks. The EPA 319 study did not consider the cost to purchase rights-of-way or private property which could account for some of the cost differential. According to the studies, short segments of the levee could be set back if funding could be acquired. The MFWCD is not opposed to levee setback when economically feasible. However, there is some question about the cost to benefit of such limited levee setback described in the EPA 319 study.

Levee setback for the entire levee system from a broader perspective has not been evaluated in depth. Both the USACE and 319 EPA study avoided evaluating the broader perspective levee setback, assuming it was not feasible due to the wide-reaching potential economic impacts, the level of infrastructure which would be impacted, and the resulting costs. The following is a brief explanation as to why the broader perspective levee setback is not feasible.

Based on geological constraints with adjacent hillsides forming one side of the levee system, the levee setback would need to be away from the hillside features into the valley floor. The setback would be offset 500 feet east of the right bank levee from the beginning at Walla Walla River Road, past Couse Creek Road Bridge, and ending at high ground near 15th Avenue Bridge. From this point, the levee setback would be toward the west from 15th Avenue Bridge to Nursery Street Bridge. Between Nursery Street Bridge and McCoy (Tum-A-Lum) Bridge, the levee setback would be offset toward the east primarily to avoid US Highway 11.

The minimum levee setback distance of 500 feet (750 feet total right-of-way width) for the entire levee setback would likely be required to allow floodplain interaction based on reference reach of the existing Walla Walla River conditions downstream of McCoy (Tum-A-Lum) Bridge. For this levee setback to occur, private property, including homes and building structures, would need to be acquired and removed. An elementary school would need to be relocated. Three irrigation diversions would need to be relocated and improved. Five existing Umatilla County bridges and one railroad bridge would need to be lengthened and improved. Existing public infrastructure including roads, curb gutter, sidewalks, storm drains, sewer lines, water lines, and other utilities would need to be removed. The existing City of Milton-Freewater urban growth boundary would need to be expanded to offset the loss of residential lots. Cost for the broad perspective levee setback would likely be more than $450 million.

High Velocity Channel with Existing Active Channel

Removing the left bank levee from its point of beginning downstream to Nursery Bridge and replacing it with a concrete high velocity channel could transport flood flows. High flows would be forced into a high velocity concrete lined channel. Normal flows up to 1,000 cfs would stay in the natural channel. Essentially, the left bank of the levee system would be replaced by a concrete channel. The existing river channel would be allowed to flow naturally. The high velocity channel would be concrete-lined with a channel slope of approximately

1 percent. Assuming a normal depth of 7 feet of water, the channel would be approximately 50 feet wide. Allowing for 3 feet of freeboard and a minimum wall thickness of 12 inches, the channel would require approximately 4.5 cubic yards (CY) of concrete per foot. Critical habitat could be preserved and enhanced since the flows for this reach could be maintained to less than 1,000 cfs.

The cost to concrete-line this segment of the channel would be more than $50 million. This option does not entirely solve the vegetation issues since vegetation would not be allowed to grow within 15 feet of the concrete channel. This option is not feasible based on the limited benefits gained versus the construction cost.

Overbuilt Levee Segments

This option would require constructing overbuilt levee sections where vegetation would be allowed to grow on planting berms. The levee right-of-way is based on a specified distance from the levee control line, which is typically the top riverside edge of the levee crown. The levee right-of-way varies from 20 to 90 feet. The limitations on this option would be the levee right-of-way width and constructed encroachments including homes and other building structures which reduce the opportunity to construct overbuilt sections for planting berms along the entire levee system.

Due to hydraulic capacity requirements and desired river geomorphologic constraints, creating a planting berm on the riverside of the levee is not possible. Since the 1968 levee rehabilitation, the river has naturally deposited sediment and moves from bank to bank. The active channel is approximately 15 to 20 feet wide. Vegetation is now growing on the sediment deposits. The river segments with established vegetation on the sediment deposits appear to be stable.

Providing a planting berm on the landside of the levee is possibile, but the value of such a berm to critical habitat is less than a riverside planting berm. There are some sections where an overbuilt levee already exists on the landside of the levee or where an overbuilt levee section could be developed. In some sections of the levee, depressions on the landside of the levee have been filled by private landowners, while in other areas the levee crown has been extended. Existing overbuilt sections include levee stations L150+00 to L155+00, L275+00 to L278+00, L312+00 to L322+00, L369+00 to L375+00, and L383+00 to L392+00. The total estimated length of levee with existing overbuilt sections is 0.6 miles.

The levee segments which could be overbuilt on existing right-of-way and without impacting structures includes the following levee stations R113+80 to R127+00, R128+50 to R180+00, R195+00 to R208+95, R277+75 to R395+00, L155+00 to L167+00, L191+00 to L209+00, L211+25 to L273+00, L275+00 to L284+50, L322+00 to L369+00, and L375+00 to L383+00. The total estimated length of levee which has the potential to be overbuilt is 6.7 miles. Based on an average levee height of 7 feet and a planting berm of 15 feet, the volume of fill would be 5.7 CY per foot. The total earth fill needed for the planting berm would be approximately 202,000 CY. At $10.00 per CY, the cost to install the planting berm would be more than $2.0 million. Additional right-of-way could be required for some segments of the levee depending on any final dimensional requirements. Considering the cost versus the limited benefit, a landside planting berm is likely not a viable option.

Manage Vegetation and Seek Variance

It takes a long time for trees to mature in size and be able to provide the habitat and shade necessary for water cooling benefits which are the goals of the United States Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration-National Marine Fisheries Service (NOAA-NMFS), EPA, and ODEQ. Long-term performance impacts will be analyzed annually over the next 10 years as additional data is gathered. The Vegetation Management Guidelines, shown in Attachment 2, are the result of a collaborative effort with

USACE, USFWS, NOAA-NMFS, EPA, and ODEQ and were adopted by the MFWCD on January 10, 2012. The vegetation management guidelines are intended to protect sensitive habitat and water quality while preserving flood reduction requirements to include a provision for inspection capability and effective flood response as necessary. The vegetation management guidelines are considered to be an interim plan and provide the basis for determining which trees should remain or be removed from the levee system. These guidelines will be followed for a period of 10 years and ideally include at least one high flow event that submerges the vegetation zone of the revetted slope of the channel. The guidelines are based on adaptive management principles which will be modified as necessary to protect public safety and meet the goals of the federal agencies for habitat and stream shading. Refer to the interim maintenance standards provided later in this document for additional details. The MFWCD intends to file a vegetation variance after the 10-year vegetation management guideline period is complete.

The end State objective is that the levee is stable with no detrimental effects, and that resultant vegetation is allowed to remain subject to scheduled inspections based on the vegetative management guidelines. For the vegetation management guidelines to be deemed successful, there would be no leakage, seepage, piping, reduced visibility, or riprap displacement. A vegetation variance would be filed at the end of 10 years.

Funding of Improvements

In November 2010, the MFWCD board, with community support, successfully passed a local levy bond for $2.85 million for levee improvements. Additionally, the Oregon State legislature granted a $2.9 million appropriation for levee and bridge improvements. To date, the MFWCD has spent approximately $2.0 million on levee improvements. The available funds should be sufficient to complete the levee maintenance deficiency work outlined in this plan. The money from the local public bond and state legislature has been, and will continue to be, used to address levee deficiencies and make levee repairs. The MFWCD is working with other funding sources for channel stabilization and fish passage projects.

Plan and Schedule for Interagency Collaboration

In 2009 and 2010, MFWCD participated in the Oregon Solutions team with many local, state, and federal agencies. Oregon Solutions brings together public, private, and non-profit stakeholders to leverage resources and integrate programs for sustainable community projects. The purpose of the Milton-Freewater Oregon Solutions Project was to provide dependable and sustainable flood reduction in an environmentally and economically sound manner. The Milton-Freewater Oregon Solutions Project process brought recognition to the levee issues and highlighted individual responsibilities of the collaborative team approach ultimately resulting in a declaration of cooperation (Attachment 3). The Oregon Solutions team was convened by Oregon State Senator David Nelson and included the following organizations:

- Bonneville Power Administration
- Community Representatives
- City of Milton-Freewater
- Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
- Department of Land Conservation and Development
- Department of State Lands
- Governor's Economic Revitalization Team
- Hudson Bay District Improvement Company
- Milton-Freewater Chamber of Commerce
- MFWCD
- NOAA-NMFS
- ODEQ
- Oregon Department of Fish and Wildlife
- USACE Walla Walla District
- EPA
- USFWS
- Umatilla County
- WWBWC

The Oregon Solutions team covered a broad range of levee issues as well as riprap repair and levee vegetation. Collaboration efforts have continued after the Oregon Solutions team meetings.

In 2011, USACE, USFWS, EPA, ODEQ, and NOAA met with the MFWCD to discuss vegetation management guidelines and proposed guidelines to provide safe levees while supporting the restoration and protection of endangered species and critical habitat. Because the science related to these issues is very limited, the group developed the Woody Vegetation Management Guidelines to meet all the agencies' purposes. All parties agreed these guidelines would have to be proven and thus an adaptive management approach was selected along with continued collaboration. The draft vegetation management guidelines were field tested by all of the agencies in November 2011. As previously mentioned, these vegetation management guidelines have been adopted by the MFWCD.

The agencies met bi-monthly from March 2011 until January 2012 to ensure the MFWCD could make progress on their desired guide path. The MFWCD continues to be involved by participating in meetings regarding environmental concerns for the Walla Walla River. The USACE Walla Walla District office has committed to continuing meetings at least on a semi-annual basis to maintain interagency collaboration during the development and execution of the SWIF process and the adaptive management of the Woody Vegetation Management Plan.

Project Specific Agreements

There are no project specific agreements.

Regional Considerations

Removal of all vegetation from the levee system is not a valid option since it conflicts with other federal agency mandates regarding the Walla Walla River. The Walla Walla River has habitat issues that affect ESA listed fish species. The Middle Columbia River steelhead (Oncorhynchus mykiss) and Columbia River Basin bull trout (Salvelinus confluentus) are both listed as threatened species. These species have designated critical habitats within the Walla Walla River. Mid-Columbia River Chinook salmon (Oncorhynchus tshawytscha) are not listed under the ESA; however, Walla Walla River levee reach is designated as EFH under the Magnuson Stevens Fishery Conservation and Management Act.

The Walla Walla River is listed on the Oregon 303d list for temperature. ODEQ has been actively striving to implement a plan to encourage cooler water temperatures for the Walla Walla River levee reach.

The Milton-Freewater area, including the Walla Walla River, is within the ceded territory of the CTUIR. The MFWCD regularly works with the CTUIR on fish passage projects. While fish passage projects are not the main objective of the MFWCD, these efforts are recognized as important to the continued recovery of ESA listed species. As a result, the MFWCD supports well-reasoned, beneficial projects that do not adversely impact public safety.

Interim Maintenance Standards

The MFWCD will follow the vegetation management guidelines developed in collaboration with federal and State agencies. The MFWCD considers the vegetation management guidelines as adopted to be an interim maintenance standard for levee vegetation along the Walla Walla River until a more permanent solution is approved in accordance with a vegetation variance.

The vegetation guidelines divide the vegetation on the levee into zones because the risk and benefits of woody vegetation vary depending on where the vegetation is located. These zones include landside slope, crown, riverside slope, and flood corridor/river channel. The guidelines focus on removing high risk, unhealthy trees on the landside, the crown, and the riverside levee slope which is the levee prism. The levee prism height varies from 0 to 12 feet with an average levee height of 6.5 feet. At 2H:1V, the slope length of the prism varies from 0 to 24 feet along the slope. According to a 2012 USACE foliage evaluation, approximately 2.1 percent of the levee prism area has vegetation. Levee cross sections showing vegetation on the levee are provided in Attachment 4. The goal of the vegetation management plan is to retain healthy trees on the lower riverside slope (generally outside of the levee prism or 15 feet down the levee slope) and in the flood corridor. Vegetation in these areas has the highest benefits to habitat and stream shade while also protecting public safety. A hazard rating system was developed as part of these guidelines based on tree health, size, and location. The hazard rating system is summarized in the tables contained in Attachment 2. The vegetation management guidelines are an interim plan which will provide an opportunity to evaluate vegetation for the next 10 years.

The MFWCD will monitor the levee woody vegetation at least three times per year, once in November ahead of anticipated flood events, immediately after significant flood events (June at the latest), and at least once during the summer months (September).

Around-the-clock monitoring will be provided during flood events, and the MFWCD will prepare incident reports documenting any woody vegetation related issues that might arise. The MFWCD will watch for

tip out of large woody vegetation, piping, and riprap displacement to evaluate any damage to the levee. During a high water event, if a tree is observed to tip out, the MFWCD will mobilize heavy track mounted equipment with articulated thumb to place riprap and fill any void in the levee. Any other riprap loss from the levee embankment will be replaced as part of expedited maintenance actions. After seasonal high water events, the MFWCD will evaluate sediment deposition and shoaling in the flood corridor which could indicate a loss of channel capacity. A field survey will be considered if a loss of channel capacity is apparent.

If the effects of large woody vegetation are observed to pose a threat to the levee integrity and consequently public safety, the MFWCD will work with the agencies to adapt the vegetation management guidelines and refine the overall maintenance strategy with respect to vegetation.

A vegetation variance application is anticipated to be filed with USACE at the end of 10 years upon the conclusion of the vegetation management guideline process as previously discussed. Information gathered as part of the annual observations and vegetation incident reports will be included as part of a vegetation variance request.

Interim Risk Reduction Measures Plan

Whether the USACE has rated the Milton-Freewater levee project for flood risk or not is unknown. The MFWCD has provided its own assessment of the levee systems. Areas with the tallest levee sections and greatest infrastructure protected by the levee have the greatest risk, and also areas with least risk of overtopping have the lower risk. Using these criteria, a map showing the areas of greatest potential levee risk is shown on Figure 2.

The right bank levee segments have moderate to short levee heights, and limited infrastructure is protected by the right bank levee systems. Consequently, the risk rating of the right bank levee segments is likely low. The upstream sections of the left bank levee in the vicinity of Couse Creek Road Bridge also have a low risk rating due to the sparsely populated area with limited public infrastructure. The risk rating is likely moderate for the left bank levee segment from the vicinity of the 15th Avenue Bridge to Nursery Bridge since this segment of the levee reaches the greatest height and protects the majority of the City of Milton-Freewater. The levee segment downstream of Nursery Bridge is low risk due to the short levee height and the limited infrastructure being protected by the left bank levee.

For some segments of the levee system, the hydraulic model indicates the flood water elevation is lower than the natural ground. This lower elevation is primarily the result of channel downcutting and includes the area downstream of Nursery Bridge for about 3,000 feet and the vicinity of Couse Creek Road Bridge. These areas in particular now have increased flood flow capacity and the associated risk of levee overtopping is extremely low. Risk ratings for these shorter segments are low. Increasing vegetation density and other sediment recruitment techniques should be encouraged in these areas to slow channel downcutting and protect the levee riprap toe.

Since 2011, the MFWCD has been actively working on eliminating maintenance deficiencies. There are only two items remaining for levee repairs.

1. The right bank levee repair work is scheduled for the instream work window in 2014. Since this work is downstream from Nursery Bridge, there is low risk of levee overtopping, but the embankment is susceptible to erosion.

2. Levee vegetation is a system wide consideration. The left bank levee segment in the vicinity of the 15th Avenue Bridge downstream to Nursery Bridge has the greatest risk and will thus be given the greatest attention for inspection and maintenance. Vegetation management guidelines outlined in Attachment 2 will be applied to the entire levee system, but increased awareness will be placed on the levee segment from the vicinity of the 15th Avenue Bridge to Nursery Bridge.

The public has been made aware of the flood risks associated with the levee system and has supported efforts to improve the levee by passing the bond levy in 2010.

The City of Milton-Freewater has an Emergency Action Plan which includes responding to flooding events and evacuation procedures. The City of Milton-Freewater renews its Emergency Action Plan annually. The Milton-Freewater area residents are made aware of emergencies by local police, sheriff, fire department, and other department alert broadcasts. Recently, the City of Milton-Freewater approved the Support Annex 13: Flood Incident shown as Attachment 5 to be used in conjunction with the City's Emergency Action Plan. During a flood emergency, the MFWCD coordinates with Umatilla County and the City of Milton-Freewater for evacuation and flood fighting efforts. Each of these entities has the following responsibilities.

MFWCD

The MFWCD coordinates overall strategic disaster response during a major emergency or disaster according to its Emergency Action Plan. If flood conditions warrant emergency actions, the MFWCD orders evacuation, whenever necessary to protect lives and property. Levee patrols are conducted as required to inspect the levee system. Levee patrol frequency is increased during high flood events and could be continually ongoing during extreme events. The MFWCD monitors levee trees and vegetation during a flood to watch for log jams or potential levee failures due to root mass tip out, especially in the highest risk areas from the vicinity of the 15th Avenue Bridge to Nursery Bridge.

The MFWCD advises the City of Milton-Freewater regarding levee safety and flood fight needs and provides information related to flood status and levee safety. (Current status: These procedures are up to date and in place).

The MFWCD has stockpiled more than 1,450 tons of riprap, located as shown on Figure 3, to be used in an emergency for flood fighting. The riprap has a 36-inch D50 and is hard durable basalt rock. A list of contractors and available resources is provided in Attachment 6.

During and after flooding, the MFWCD coordinates levee repair efforts with federal, State, and local agencies. Open lines of communication are established with USACE for PL84-99 repairs and emergency flood fighting efforts. The MFWCD will request State and federal support if flood requirements exceed the MFWCD capabilities. During a flood emergency, the MFWCD will formally notify USACE.

The MFWCD evaluates river stage and weather information including snow pack to prepare for flooding conditions. The levee system is maintained and operated to ensure access for flood fighting and emergency repairs. (Current status: Monitoring and evaluation are regularly exercised and access throughout the levee system is now available).

Umatilla County

Umatilla County Emergency Management provides up to 10,000 sand bags to be filled with sand. Additionally, a vote of the Umatilla County Commissioners authorizes use of the Umatilla County Road Department equipment to assist with flood fighting.

City of Milton-Freewater

The City of Milton-Freewater has many resources available in support of mitigating a flood incident and brings these resources to assist the MFWCD in emergency situations.

The Public Works Department installs traffic control signs and barricades and directs the operational control of traffic signals and equipment. The Public Works Department also assists with the identification of evacuation routes, assists with damage assessment including roadways and bridges, and provides debris removal in blocked roadways or evacuation routes.

The Fire Department orders evacuations whenever necessary to protect lives and property, assists with initial on-scene evacuation, assists overall incident response, and assists with the dissemination of evacuation instructions and information to the public.

The Police Department orders evacuations whenever necessary to protect lives and property. The Police Department also assists with initial on-scene evacuation, assists with overall incident response, and provides evacuation instructions and information to the public. The Police Department provides damage assessments regarding the viability of evacuation routes, provides traffic and crowd control, and manages access to and protects property in evacuated areas. Additionally, the department coordinates removal of stalled vehicles and equipment from evacuation routes and assists in identifying the location and welfare of affected citizens.

The Public Transportation Department provides mass transit facilities and equipment to support evacuation efforts.

Risk Communication Plan

The Milton-Freewater community is well aware of the risks associated with the system wide levee deficiencies. The MFWCD has held annual meetings at the Community Center to inform the public of risks associated with the levee deficiencies. The community approved a bond levy measure by more than 80 percent in the fall of 2010 due to recognition that the levee system deficiencies needed to be addressed.

The MFWCD holds monthly meetings to discuss the ongoing flood project status. A major effort has been made to inform local residents of the importance of the levee easement and minimizing encroachments to ensure operations and maintenance will not be hindered. Certified mail has been delivered to all residents living along the levee to communicate the ongoing levee improvements and the importance of the work. The MFWCD continues to educate local citizens regarding the flood risks if the levee were to fail or if levee deficiencies were not corrected.

Three local newspapers, the Walla Walla Union Bulletin, Valley Herald, and East Oregonian have published articles regarding the Milton-Freewater levee. The MFWCD also has its own website at www.mfwcd.com for posting information regarding the levee system.

Schedule and Milestones

The following schedule and milestones will be used to monitor progress for the Milton-Freewater levee systems. As shown, the project work should be completed by the end of 2014 with the exception of vegetation management which has a condition based schedule.

Erosion Protection

Downstream Nursery Bridge Right Bank

- Advertise Project — May 2014
- Project Award — June 2014
- Project Construction — July 15 to September 30, 2014

Milestone – Project Completion — November 2014

Vegetation

- Vegetation Management Guidelines adopted by the MFWCD — January 10, 2012
- Monitor trees a minimum of three times annually (November, June, and September) watch for tip out, piping, riprap displacement, and sediment deposition — 2013 to 2023
- For trees that tip over, record the size, location, and rootball dimensions (height, width, and length) — July 2013 to July 2023
- Measure and record any tree-over throw pits — July 2013 to July 2023
- Record any signs of riprap displacement — July 2013 to July 2023
- Replace any displaced riprap — July 2013 to July 2023
- Review signs of levee leakage, seepage, piping, and other issues — Annually
- Re-evaluate vegetation management guidelines — Annually
- Submit vegetation variance request — September 2023

FEMA Notification

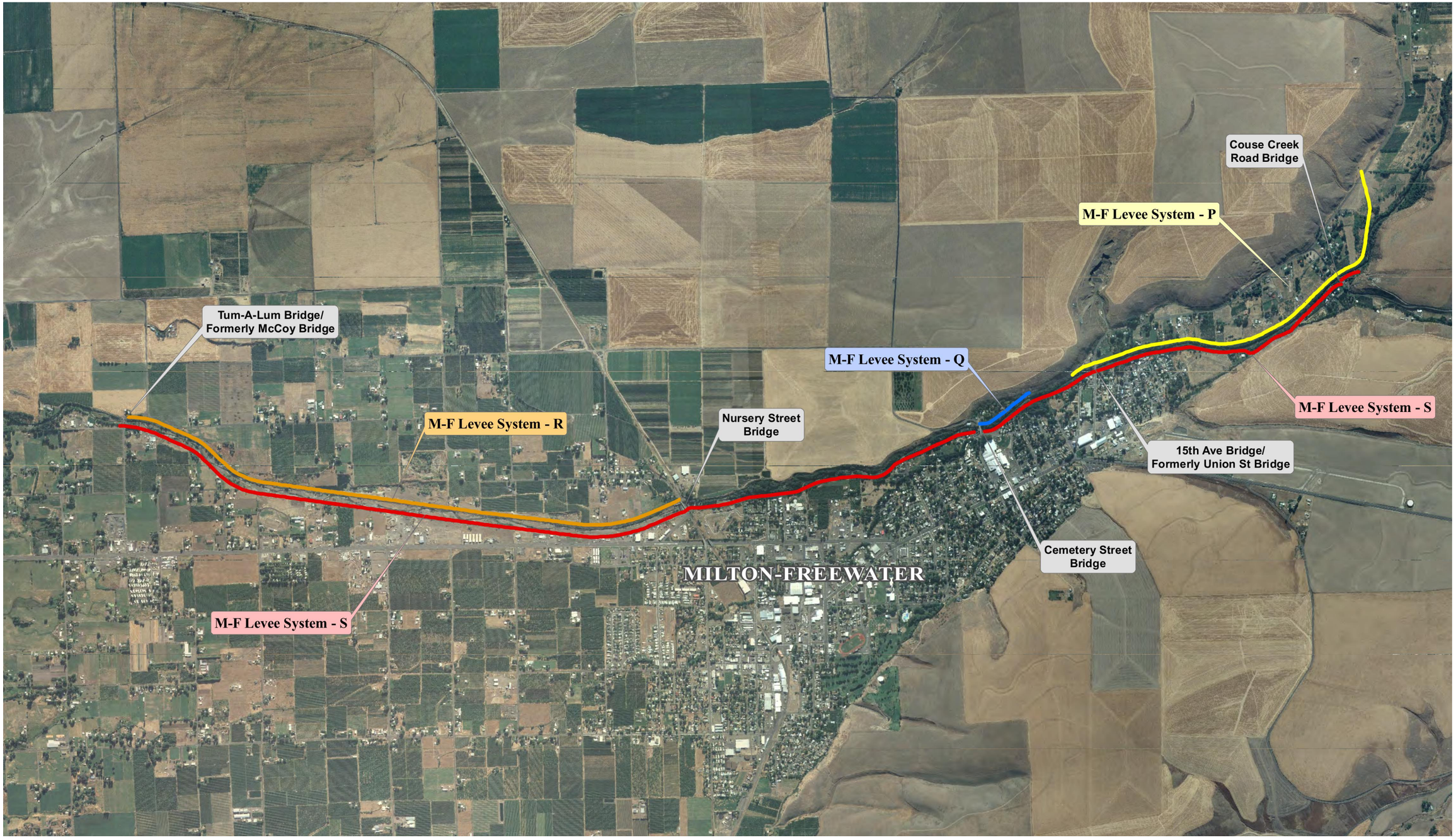
The MFWCD is moving forward to enable all of the Milton-Freewater levee systems to become accredited by the Federal Emergency Management Agency (FEMA). On January 16, 2012, FEMA was notified by email of the development of a SWIF plan for these levee systems. A conditional letter of map revision (CLOMR) application was submitted to FEMA to begin the process of changing the flood maps.

The MFWCD understands the SWIF process is not an extension of the accreditation for FEMA purposes; however, work being proposed for the SWIF plan is also expected to fulfill 44 CFR65.10 requirements, specifically regarding freeboard requirements.

References

1. Design Memorandum No. 1 (Milton-Freewater Levees, 22 May 1969); USACE Walla Walla District.
2. Revised Levee Height Drawings (December 2011); Anderson Perry & Associates, Inc.
3. Hydraulic Model (October 2011); C.A. Good.
4. Trip Report: Site Visit to Examine Woody Vegetation on Levee; ERDC August 2011; Dunbar, Gore, Corcoran.
5. Memorandum 2012 Milton-Freewater Levee Foliage Area (USACE 2012), Michael Franssen & Matt Del Moro.
6. Nursery Bridge Grade Control Structures Basis of Design Report, Tetra Tech (March 2008)

FIGURES



Legend

Levee Centerlines

- Levee System 1
- Levee System 2
- Levee System 3
- Levee System 4

1000 0 1000 2000 3000
SCALE IN FEET

(SOURCE: SOURCE: UNITED STATES ARMY CORPS OF ENGINEERS NATIONAL LEVEE DATABASE)

anderson perry & associates, inc.

MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE SYSTEM VICINITY MAP
SYSTEM WIDE IMPROVEMENT FRAMEWORK PLAN

FIGURE
1

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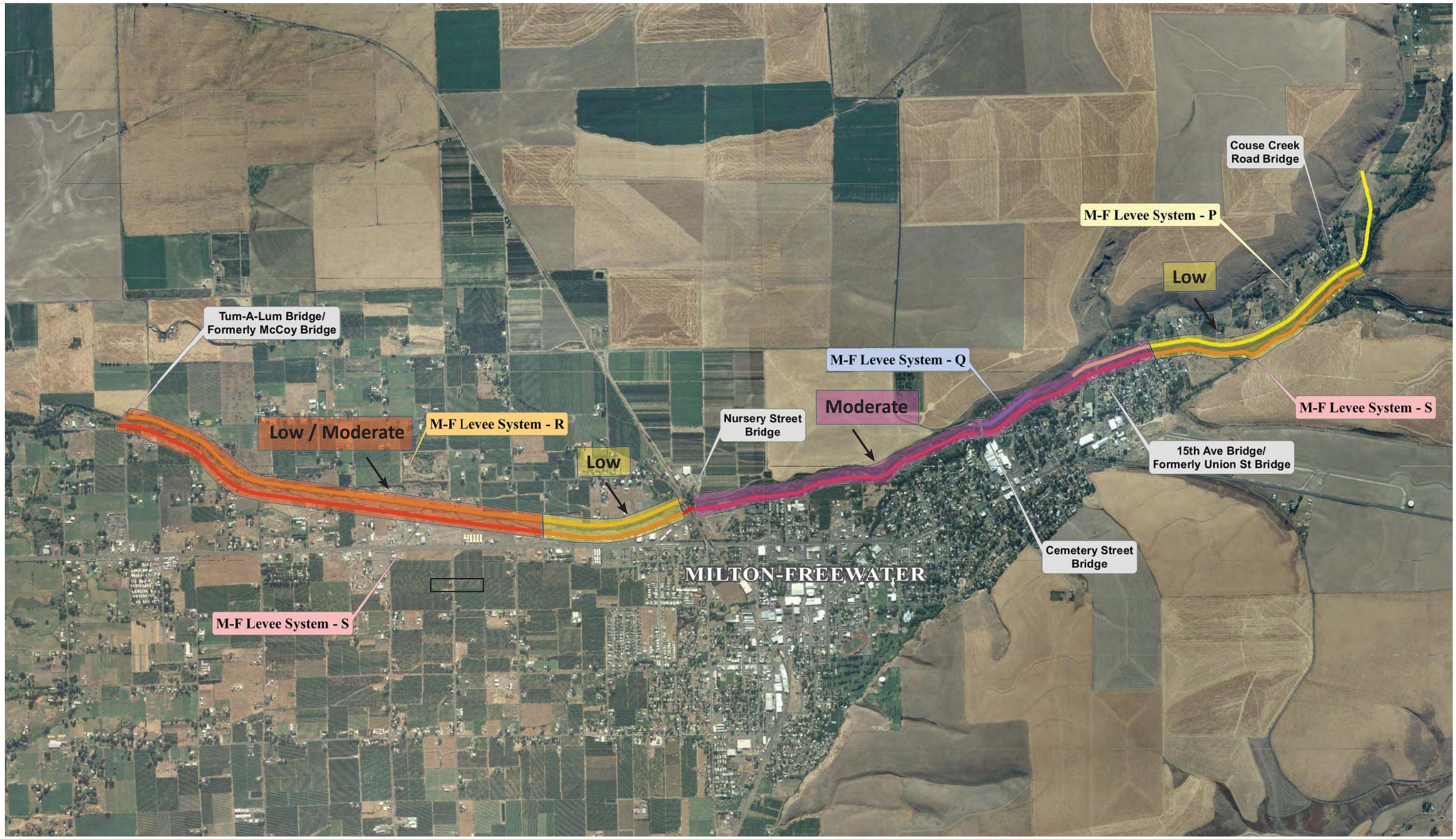

Legend
Levee Risk

- Low
- Low / Moderate
- Moderate

(SOURCE: SOURCE: UNITED STATES ARMY CORPS OF ENGINEERS NATIONAL LEVEE DATABASE)

Legend
Levee Centerlines

- Levee System 1
- Levee System 2
- Levee System 3
- Levee System 4

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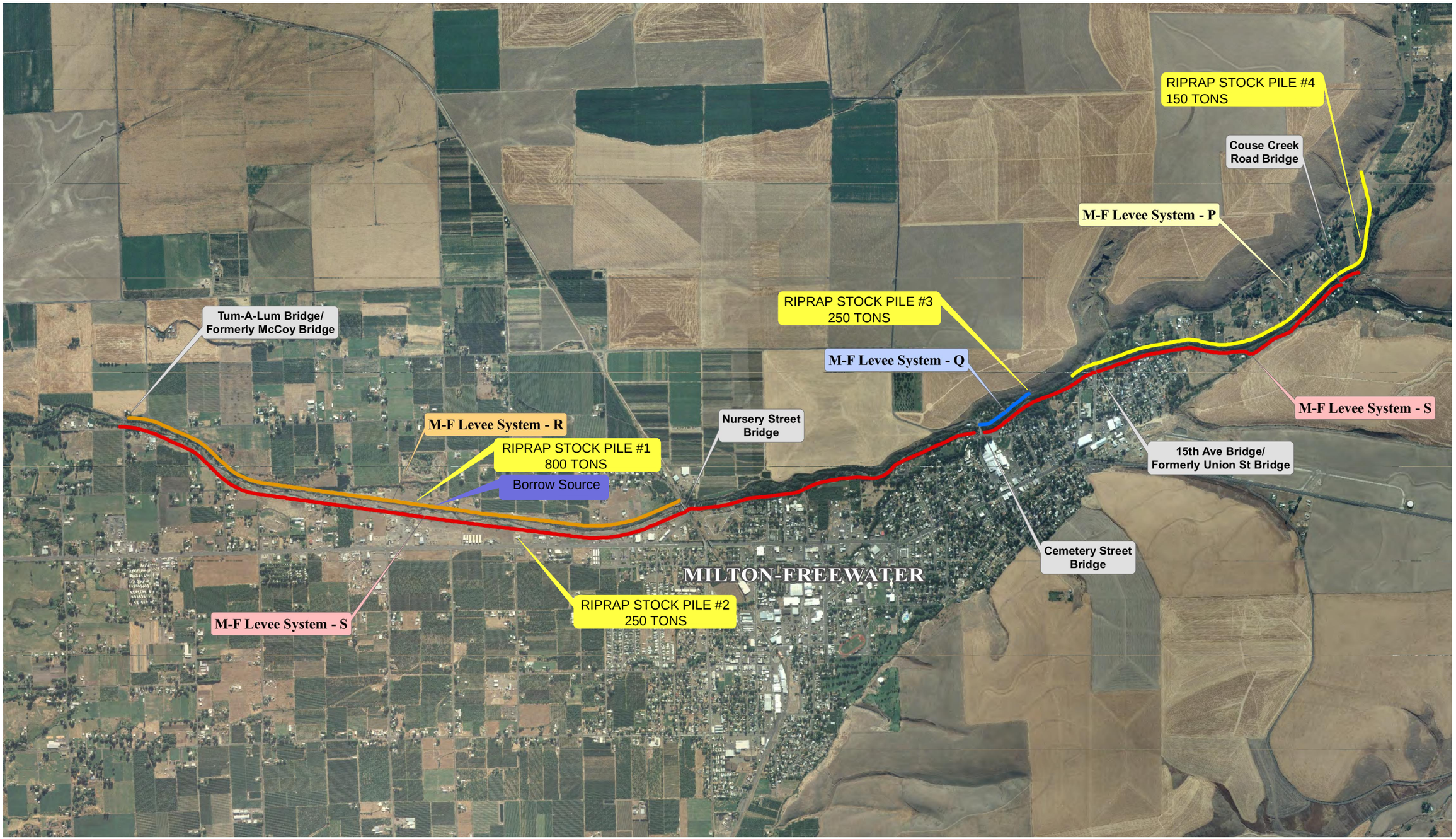
SCALE IN FEET

anderson perry & associates, inc.

MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE SYSTEM RISK MAP
SYSTEM WIDE IMPROVEMENT
FRAMEWORK PLAN

FIGURE
2

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\FIGURE 2.indd



Legend

Levee Centerlines

- Levee System 1
- Levee System 2
- Levee System 3
- Levee System 4

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SCALE IN FEET

(SOURCE: SOURCE: UNITED STATES ARMY CORPS OF ENGINEERS NATIONAL LEVEE DATABASE)

anderson perry & associates, inc.

MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE RIPRAP STOCK PILES
SYSTEM WIDE IMPROVEMENT
FRAMEWORK PLAN

FIGURE
3

ATTACHMENT 1

USACE 2011 Levee Inspection Summary Letter

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
201 NORTH THIRD AVENUE
WALLA WALLA, WASHINGTON 99362-1876

REPLY TO
ATTENTION OF

January 10, 2012

Engineering and Construction Division

Mr. Manford E. Anliker
Chairman, Milton-Freewater Water Control District
Post Office Box 67
Milton-Freewater, Oregon 97862

Dear Mr. Anliker:

Enclosed are four periodic inspection reports for systems MFR1, MFR2, MFR3, and MILT of the Walla Walla River Flood Reduction Project located near Milton-Freewater, Oregon. Note systems previously named sections P, Q, R, and S have been renamed MFR1, MFR2, MFR3, and MILT respectively. This is the naming convention used in the National Levee Database and the Levee Inspection tool.

The USACE commends MFWCD on the progress made so far to address the deficiencies on the Milton-Freewater Flood Damage Reduction System. The following summarizes the results of this inspection.

System 1 (MILT) rating: Unacceptable. Unacceptable item ratings continue for vegetation removal and channel capacity. You have completed repairing culverts, the concrete drop structure, riprap toe damage below Nursery Bridge, and permitting encroachments. The ratings of these items have been changed to acceptable or minimally acceptable.

System 2 (MFR1) rating: Unacceptable. Unacceptable ratings continue for vegetation removal and channel capacity. You have completed repairing culverts, and permitting encroachments. The ratings of these items have been changed to acceptable or minimally acceptable.

System 3 (MFR2) rating: Unacceptable. Unacceptable ratings continue for vegetation removal and channel capacity.

System 4 (MFR3) rating: Unacceptable. Unacceptable ratings continue for vegetation removal, and riprap toe repair. You have completed repairs to culverts, the concrete drop structure repair, and encroachments. The ratings of these items have been changed to acceptable or minimally acceptable.

Overall, all four systems have been rated unacceptable but progress has been made repairing riprap, concrete damage, culvert maintenance, and permitting encroachments. Although much progress has been made in removing vegetation, more vegetation must be removed to meet the

Corps vegetation standard or submit an acceptable vegetation variance. There are also several channel capacity issues that need to be resolved and further design work needs to be provided for review.

If you have any questions concerning these reports please contact Curtis Been or myself at 509 527-7241 or 527-7144 respectively.

Sincerely,

Donna L. Street, P.E., PMP
Levee Safety Officer
Chief, Engineering and Construction Division

Enclosures

11 Jan
BESSEY/sj
BEEN
GIBBONS
PALMER
Street
Sjones
BESSEY

ATTACHMENT 2

Vegetation Management Guidelines

Milton-Freewater Levee Woody Vegetation Management Guidelines

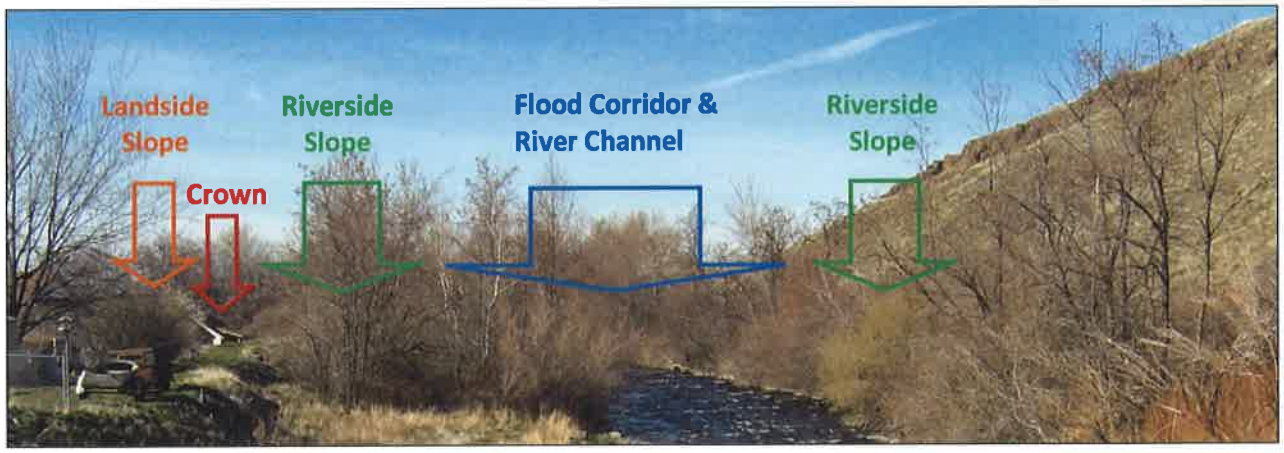
These guidelines lay out a strategy for management of woody vegetation along the section of the Walla Walla River that is bounded by the City of Milton-Freewater's levee system. They were developed to provide the U.S. Army Corp of Engineers and other regulatory agencies with clear standards that the Milton-Freewater Water Control District will follow when managing levee vegetation.

The guidelines are the product of a collaborative effort involving the Milton-Freewater Water Control District, the U.S. Army Corps of Engineers' Walla Walla District, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Oregon Department of Environmental Quality, the U.S. Environmental Protection Agency. They represent a commitment made by the leaders of those agencies and organizations to work together to find an acceptable solution to this complex issue.

Combined with a series of structural improvements to the levee that the Water Control District is currently undertaking, these vegetation management guidelines are intended to facilitate reinstatement of the Milton-Freewater Levee back into the Corps' Levee Rehabilitation & Inspection Program (PL 84-99) and also adequately address other State and federal obligations for protection of fish, wildlife, and water quality in this environmentally significant waterway.

These guidelines are organized by levee zones (Figure 1), because the risks and benefits of woody vegetation vary depending on where they are occur on the levee profile. On the landside slope and levee crown, risks to levee operations are relatively high and the contributions of woody vegetation to the riverine system are less direct, so in these areas the guidelines call for keeping woody vegetation to a minimum. Conversely, the guidelines emphasize retention of healthy trees on the lower riverside slope and in the flood corridor where the potential for levee damage is low and the habitat benefits are high. The proposed hazard rating system considers a variety of factors, including tree health, size, position on slope, & floodway capacity.

Figure 1. Levee zones on the Milton-Freewater Levee. This section contains trees in the flood corridor; in other areas, the active river channel extends from one edge of the levee to the other.



Landside Slope

The landside slope is defined as the section of levee that extends from the edge of the levee crown down to where the levee meets grade or natural ground elevation on the land side. These guidelines call for most woody vegetation to be cleared from the landside slope to maintain levee visibility for inspection (Table 1). Selected trees that have beneficial attributes (e.g., they shade the stream or provide wind protection for riverside trees) may be retained as appropriate on a case by case basis.

Levee Crown

The levee crown is defined as the flat section along the top of the levee. This section of the levee must be kept clear of trees and brush so that vehicle access is maintained for inspection, maintenance, and emergency response.

Riverside Slope & Levee Toe

The riverside slope runs from the crown's edge on the river side down to the levee toe. The levee "toe" on the river side is defined as the point where the elevation is equal to the natural ground elevation at that same point *on the land side of the levee* (Figure 2). Note that the riverside toe **is not** defined by the extent of rock rip rap or by the slope break. The rock rip rap typically extends well below the levee toe on the river side.

Upper Riverside Slope: In these guidelines for the Milton-Freewater Levee, we define the upper riverside slope as the section of levee that extends from the edge of the levee crown down the surface of the levee slope for a distance of 15 feet (Figure 2). The upper riverside slope can be vulnerable to damage from windthrown trees because it is the thinnest section of the levee and the most exposed. Therefore, trees that emerge on this part of the levee will generally be cut down (Figure 2). In most sections of the Milton-Freewater Levee, the upper slope is currently treeless (Figure 3), so these areas can be maintained as they currently are.

Figure 2. A cross-section sketch of a one-sided levee reach showing the upper & lower riverside zones and how the levee toe corresponds with the natural ground elevation on the landward side.

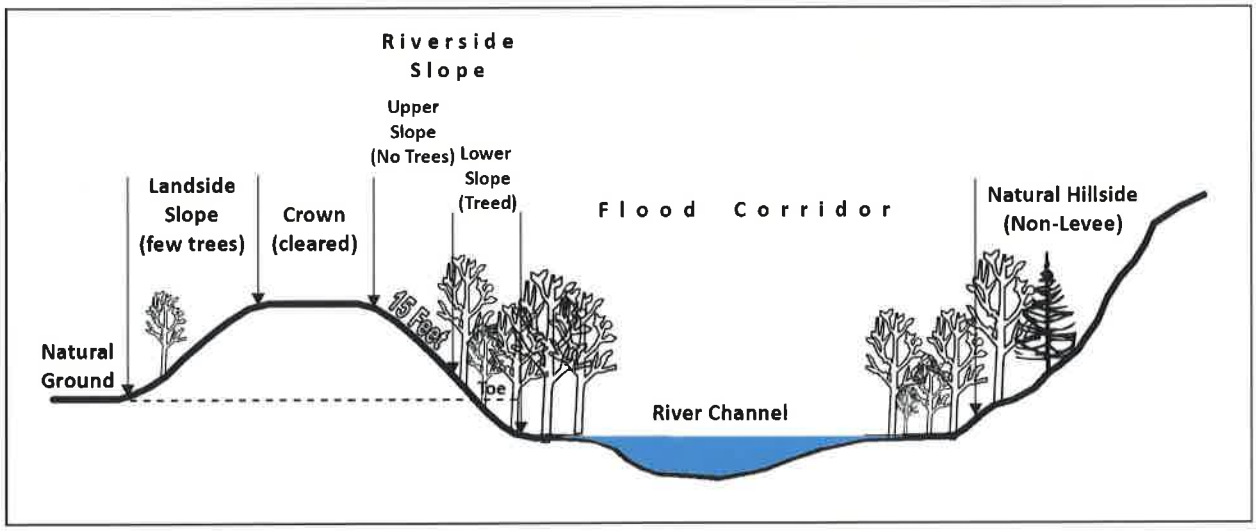


Figure 3. Photo shows desired condition of crown and riverside slope. The crown and upper riverside slope are clear of woody vegetation, while trees on the lower riverside slope shade the river.

Lower Riverside Slope: The lower riverside slope is defined as all parts of the riverside levee slope surface that are 15 feet or more from the edge of the levee crown, as measured along the levee surface. The management guidelines emphasize retention of healthy trees on the lower riverside slope, where trees are less vulnerable to windthrow and are typically close to the water surface where their canopy is most needed to shade the river and moderate water temperatures.

River Channel and Flood Corridor

The flood corridor is the confined area between the levees that influences capacity for conveyance of the river's peak flows. It is defined as the area between the levee toes on each side of the river, or as the area between one levee toe and the equivalent elevation on the far bank in reaches that have a levee on one side and a natural hillside on the other (Figure 2). Within the flood corridor is the primary river channel which carries streamflows year-round and provides aquatic habitat. Woody vegetation grows in many places within the flood corridor and particularly along the edge of the river channel, but not within the active channel itself. In some reaches, the river channel spans most of the flood corridor, while in other areas the flood corridor is substantially wider than the active channel. In addition, well-rooted woody vegetation provides channel stability and buffers flood energy in ways that can assist in protecting the levee from damage.

If the flood corridor has sufficient capacity to safely convey peak river flows, then the presence of woody vegetation in the corridor does not interfere with flood prevention. In sections of the Milton-Freewater Levee System that have excess flood capacity, the management emphasis is to retain or increase woody vegetation to promote healthy riparian forests that shade the stream and provide habitat value.

However, hydraulic modeling has identified several locations along the Milton-Freewater Levee where the flood corridor's capacity is near or below threshold levels for safe conveyance of potential peak streamflows. In these areas, some woody vegetation may need to be removed from the flood corridor to increase peak flow capacity. The amount and extent of this vegetation removal must be determined through site-specific analyses of those areas. Other options to increase flood capacity, such as partial levee setbacks, raising levee embankments, or removal of depositional gravel bars, should also be considered to minimize the amount of overstory tree removal.

Bridge protection and log jam prevention are important considerations in the leveed reach. The primary threat to bridges is the accumulation of woody debris that can lodge against bridge piers or abutments and trigger significant damage. Large trees that fall into the river and are swept downstream during high flow events are the biggest threat to bridges, as they can lodge against bridge piers and then catch additional debris as it comes downstream. This issue will be addressed through the hazard risk evaluation process. Potentially damaging accumulations of large downed trees or log jams that form in the leveed reach should be dismantled to protect bridges and other infrastructure in the area. Otherwise, woody debris should be left in the stream channel to provide fish habitat.

Slopes without a Constructed Levee

Approximately 40% of the Milton-Freewater Levee Reach is a "one-sided" levee, where there is a constructed levee on one side and a natural slope confining the river on the other side. These natural slopes are not part of the levee system and therefore there are no restrictions on the growth of woody vegetation on them.

Table 1. Woody Vegetation Management Objectives and Guidelines

Levee Zone	Management Objectives	Management Guidelines
Landside Slope	• Keep landside slope largely clear of woody vegetation to provide visibility for inspection of possible seepage & structural integrity, and for access in case of emergency.	Clear trees and shrubs as needed to keep the landside slope visible. Selected trees may be retained on a case-by-case basis, with particular consideration given to healthy trees that help shade the stream or provide wind protection for near-stream trees.
Levee Crown	• Keep crown clear of vegetation for emergency vehicle access.	Remove all trees and shrubs from the levee crown to keep it open for vehicle access.
Riverside Slope	• Maintain visibility of levee surface to monitor conditions. • Maintain structural integrity of the levee and channel capacity for flood flow conveyance. • Promote a healthy riparian forest buffer, favoring native species, by retaining healthy trees that shade the stream & moderate water temperature. • Control invasive or undesirable plants (e.g., blackberry).	• Clear understory shrubs & vines as needed to keep levee surface visible. <u>Use control methods that do not kill or weaken overstory trees</u>. • Thin understory trees & saplings to maintain visibility while retaining some trees for recruitment of future overstory trees. **Upper Riverside Slope:** • Remove trees from the upper riverside slope. • For practical purposes, this zone can typically be defined as extending a distance of 15 ft down from the edge of the levee crown. **Lower Riverside Slope:** • Retain trees with a hazard rating of 4 or less on the lower riverside slope & levee toe. Cut trees in this area if they have a hazard rating of 5 or more. • Where appropriate, cut trees 4 to 6 feet above the ground to expedite recruitment of new shade trees (through stump-sprouting).
River Channel & Flood Corridor	• Maintain channel capacity for flood flow conveyance. • Promote vegetation that will shade the stream and provide wildlife habitat. • Manage down logs & woody debris to protect bridges. • Retain large woody debris that is not a threat to infrastructure.	• In areas where channel capacity is sufficient, retain all flood corridor vegetation with the exception of high risk trees (rating of 6 or more). • Where channel capacity is inadequate, develop site-specific strategies to increase capacity in ways that minimize loss of overstory vegetation. • Remove log jams and/or debris accumulations that have significant potential to cause damage to bridges or other infrastructure in the area.
Non-Leveed Slopes	• Natural slopes bounding the river channel are not part of the regulated levee system.	• No restrictions on the growth of woody vegetation.

Table 2. Tree Hazard Rating System. Trees on the lower riverside slope and in the flood corridor near the levee toe will be scored on their failure potential and damage potential. These two scores are added together to determine the hazard rating and to determine whether the tree is kept or cut (bottom of table).

	Rating
Tree Failure Potential: 1 = ***No Failure Potential***. Healthy trees that lack any indicators of failure, have a goo root base, and are not leaning. No expected wind load. 2 = ***Low Failure Potential***. Sound trees that lack indicators of failure, are not leaning significantly, and are not exposed to high wind load. 3 = ***Moderate Failure Potential***. Trees that are leaning substantially, or are exposed to high wind loads (i.e., are located on the upper third of the levee slope). 4 = ***High Failure Potential***. Diseased or dying trees as evidenced by dead tops or extensive foliage loss; trees with roots exposed by channel erosion; dead trees; trees with obvious root disease.	
Damage Potential – potential damage to levee (or other infrastructure) if tree fails: 1 = ***Low Damage Potential***. Trees that, if toppled, would result in no damage or only negligible damage to the levee. Examples include: • Trees rooted at the base of the levee slope, near the toe, or in the floodway corridor; • Trees on the levee slope that are not large enough to have roots capable of dislodging riprap-size rock. 2 = ***Moderate Damage Potential***. Trees that, if toppled, could cause some moderate damage to a section of the levee. Examples include: • Trees on levee slope of sufficient size to dislodge some rock if toppled; • Trees near the levee slope that could, if toppled onto the levee, cause some limited damage; live, leaning cottonwood trees are usually moderate damage potential because their branches/trunks typically snap off rather than uprooting of the entire tree. 3 = ***High Damage Potential***. Trees that, if toppled, could possibly cause extensive damage to the levee or to downstream bridges. Examples include: • Trees growing on the upper edge of the lower riverside slope in exposed locations with roots capable of dislodging a sizeable crater in the levee surface. • Trees near the levee slope that could, if toppled onto the levee, cause significant structural damage. • Partially undermined, large trees in the flood corridor that are in locations that pose a substantial threat to nearby bridge piers or abutments.	

Hazard Rating	Lower Riverside Slope	Flood Corridor near Toe
3 or less	**Retain Tree**	**Retain Tree**
4	**Retain Tree, monitor closely**	**Retain Tree**
5	**Cut Tree**	**Retain Tree, monitor closely**
6	**Cut Tree**	**Cut Tree**

ATTACHMENT 3

Oregon Solutions Declaration of Cooperation

Declaration of Cooperation

Milton-Freewater Levee Project

July, 2010

Sponsored by:
City of Milton-Freewater
Milton-Freewater Water Control District
Oregon Solutions

Oregon Solutions Process: Oregon Solutions (O/S) is a program of the National Policy Consensus Center at Portland State University. The mission of Oregon Solutions is to develop solutions to community based problems that support sustainable objectives and are built through the collaborative efforts of citizens, businesses, government and non-profit organizations. The O/S approach integrates and makes efficient use of public and private investments, elevates the visibility of the project and engages communities in creating solutions. The process provides a neutral forum – a place where various interests and stakeholders can come together as parties in a "Project Team," in a manner that is more neutral than a meeting sponsored or hosted by one of the parties at the table.

Purpose of Declaration of Cooperation: Through the Oregon Solutions process described above, collaboration between parties on the Project Team is anticipated to develop and evolve as the process continues, with the intent to foster or facilitate agreements amongst the parties about which potential actions, or suite of potential actions, may be taken to cumulatively lead to successful project outcomes, including preliminarily identifying which party may be appropriate to take specific potential actions, how and when. This collaborative work product is documented at the end of the O/S process in the "Declaration of Cooperation," which can be understood as a non-binding *implementation plan.* To supplement the Declaration, each party in the Project Team submits separate, additional information, referred to as "stakeholder commitments," describing their commitment to the process and why they have participated (for example, providing linkages to the project by explaining background, capabilities, and interests of the party's organization), and how they may contribute to the actions identified as

appropriate by the parties through the O/S process, as documented in the Declaration. The Declaration, including the stakeholder commitments, is considered to be a "living" document that shall continue and may evolve with the opportunities for parties to amend by unanimous consent from time to time, to represent changing situations often found during project development, until project completion or until suspended by mutual agreement.

Preface: On May 1, 2009, the City of Milton-Freewater requested that Oregon Solutions be used to address a community problem. The issue involves weakened and deteriorating levee structures and down-cutting of the channel on the Walla Walla River which runs through the City. Following a project assessment by the Oregon Solutions office, a formal request by local government officials was made to Oregon Solutions Board Chair Governor Kulongoski to have Oregon Solutions undertake this project. On July 17, 2009, Oregon Governor Kulongoski formalized the designation of the Milton-Freewater Levee Project by letter *(see Appendix I.)* Senator David Nelson was designated by the Governor as Convener for a Project Team and a project manager was assigned by the Oregon Solutions office.

Through his O/S designation of this project, the Governor has assured participation of his staff and appropriate state agencies along with public and private partners. A Project Team of interested and affected parties has been assembled in an effort to bring partners to the table. It is expected that the work of this Team will help make efficient use of available resources, search for additional funding opportunities, accelerate the pace of the project, overcome potential impediments early on, and raise awareness of the project at local, regional, state and federal levels. In this fashion, the Project Team will commit resources and time to an integrated action plan focusing on successful and sustainable outcomes.

Background to Project

Inability of Milton-Freewater Water Control District to Keep Up with Maintenance: In the 1940's the U.S Army Corps of Engineers (USACE) constructed levees along the river to protect property from flooding. Through the years, USACE has made emergency repairs to the levee system following flood events, however regular maintenance of the levee has been the responsibility of the Milton-Freewater Water Control District (WCD) since 1964. The District collects approximately $24,000 in tax revenue annually which has proved inadequate to maintain the levees and related structures. In 2002, USACE (Walla Walla District) informed the M/F WCD that several areas of the river had deficient flood risk reduction structures and needed to be repaired. Over the past several years, the WCD has unsuccessfully held three elections to seek funds to make the needed repairs and fund future maintenance of the flood risk reduction structures. The amount requested for each bond issue was $1 ½ million.

U.S. Army Corps of Engineers "unacceptable" rating and FEMA Flood Map Amendment: Unable to fix the cited levee deficiencies, in 2006 the Corps gave the levee structures a condition rating of "unacceptable" primarily due to maintenance deficiencies of the concrete drop structure and rock riprap along the levees. Failure by the project sponsor to correct deficient maintenance resulted in the removal of this project from the Corps' *Rehabilitation and Inspection program (RIP.)* This program provides for inspection of flood control projects, and the rehabilitation of damaged flood control projects. Should an eligible project require rehabilitation as a result of damage from a significant flood event, project rehabilitation would be accomplished under provisions of PL 84-99.

Subsequent to the Corps action, the Federal Emergency Management Agency (FEMA) was notified of this action. FEMA is currently embarked on a nationwide flood plain mapping program, which includes Umatilla County. A flood plain map, which accompanies FEMA's Letter of Final Determination, shows a sizable portion of Milton-Freewater to be in a flood plain. [Engineering analysis for the flood plain map was done as if there is no levee along the Walla Walla River, since that structure has been found "unacceptable" by the Corps.]

Several thousand structures will be affected by the FEMA flood plain map. The city currently is engaged in adopting the required Flood Damage Prevention Ordinance and other related materials in order to comply with FEMA's map adoption process. The deadline for map adoption is September, 2010. Depending on the age of structures, and when flood insurance is secured, it is estimated that insurance costs per structure will be in the thousands of dollars every year. In addition, future construction costs will be higher in the flood zone to comply with new city flood zone regulations.

Additional Corps Levee Inspection in 2010: The Corps completed an additional levee inspection in April, 2010. The report from this inspection noted previous deficiencies including the drop structure and stilling basin, vegetation and numerous culverts. The inspection also noted that there has been significant degradation of the channel and the resulting down-cutting of the channel bottom is not the result of maintenance deficiencies alone. The result of this new finding, is that the project now has significantly expanded in scope, time and funding. The Corps has explained that the significant down-cutting problem on this project (Walla Walla River Levee) was analyzed using four "systems". Each system or section of the levee, by themselves, when repaired could be eligible to re-enter the Corps Rehab and Inspection Program.

Project Team Goal

The Project Team *(see Appendix II)* has developed the following goal statement:
The purpose of the Milton-Freewater Oregon Solutions Project is to provide dependable and sustainable flood reduction in an environmentally and economically sound manner.

At a December 8, 2009 Project Team meeting, the following consequences of not repairing the deficiencies were discussed: (In essence, if nothing happens how that will affect the community.)

- Increased Cost to Property Owners: Mortgage Flood Insurance
- Economic Decline: Building Restrictions and Insurance Costs
- Continued Levee Deterioration
- Safety: Property and Lives at Stake
- Community/Political Pressures
- State/Federal Oversight Consequences
- Public Investments are at Risk
- Fish & Wildlife Resources will Face Impediments

Project Elements

The first priority objective to address the goal stated above is: To repair the appropriate deficiencies in order to received from the Corps an acceptable rating and then apply to FEMA for a flood plain map modification. The implementation process for this Milton-Freewater Levee Repair project is summarized below. The lead entity charged with follow-through is the Milton-Freewater Water Control District; however, "stakeholder commitments" outlined in this document show numerous partnership arrangements to assist in project implementation.

Tasks to accomplish this objective are:

1. Repair Drop Structure and Stilling Basin (Nursery Dam)
2. Repair Damaged Culverts
3. Removal of Appropriate Vegetation
4. Repair the Levee "System", which when repaired, will lead to FEMA map modification. (Eventual repair of all four (4) levee systems will complete the project)
5. Develop a Maintenance Plan for the Levee Project

Nursery Dam Concrete Replacement

The Nursery Dam was constructed in 1966 to stop degradation that occurred within the levee reach of the Walla Walla River after the construction of the levees in 1952. The dam is composed of two concrete sills separated by a 70 foot concrete slab. The larger of the two sills is located upstream and is about 13 feet higher than the top of the concrete slab. A fish ladder sits to the east (built in 1997) and one to the west (built in 1967) of Nursery Dam. There is considerable erosion to the concrete slab for about eight feet downstream from the larger sill. Possible deterioration is also expected onthe drop structure.

It will be necessary to dewater the facility and complete a thorough inspection for all damaged areas. The eroded concrete slab and any other deteriorated concrete sections, including damaged portions of the upper sill will need to be repaired or replaced. Steel will need to be installed and new concrete poured per engineered design.

A preliminary engineering study by Anderson/Perry Assoc. Dated March 2007 estimates the total cost of engineering design and construction to be approximately $162,000. The Milton-Freewater Water Control District, upon a successful bond election in November of 2010 will provide the necessary funding for the Nursery Dam engineering and construction. Other partners in the Oregon Solutions process may assess the potential for providing funding assistance.

A two year time line is anticipated for Nursery Dam repairs. Following a successful election in November 2010, engineering design and permit applications can begin. Construction would occur in the summer of 2011.

Damaged Culverts

Approximately twenty culverts were observed to be damaged or inoperable. Some were plugged and several did not have gates attached. Until repairs are made, these breeches could cause water to flow to areas outside the levee during high water events. The Milton-Freewater Water Control District schedule repairs to culverts from the proceeds of a successful bond issue.

Vegetation removal

An important facet of this project will be balancing environmental laws and concerns with existing Corps policies and regulations on vegetation in the levee area.

The Army Corps of Engineers has restrictions on vegetation along flood control levees. These regulations are in place to ensure that proper levee inspections can take place, allow for efficient flow of water during high water events, and to limit levee damage during flooding. Even if flood risk reduction structures are repaired, it is likely that the Corps will not find the levees to be "acceptable" until vegetation and other woody debris obstructions are removed from the dike areas.

In the conduct of this Oregon Solutions project, some environmental interests have cited various studies in other parts of the nation that demonstrate the need for vegetation along the Walla Walla River to improve fish habitat and improve water quality. A sub-group of interested parties has been meeting to discuss the alternatives available to the Water Control District. This committee is lead by John Stephenson (US Fish). In June, 2010 this group met with the District to survey the vegetation and come to a short term compromise on what vegetation can be removed. The use of goats to reduce some vegetation within the levee area is being explored by US Fish & Wildlife and the Walla Walla Basin Watershed Council. As longer term construction projects are undertaken, project review including permits will address vegetation more substantially. In addition, with the assistance of an EPA 319 grant (see Longer Range Solutions) a vegetation variance application may be forwarded to the Army Corps for their consideration.

Major Repairs to One or More Levee Systems

The 2010 Inspection report describes the levee project as having four "system." Each system describes a separate reach of the river. The systems are considered separate and independent of the others for flood reduction purposes and each may be repaired separately, and subsequently be considered for re-entry into the Corps Rehab and Inspection Program. (see page 3) The Corps has referenced other projects where a "system" has been repaired and is sufficient justification to apply to FEMA for a map modification.

It will be the responsibility of the M-F WCD's engineer to ascertain which system, or systems, should first be repaired in order to alleviate flood water in Milton-Freewater, and therefore justify an application to FEMA for a map modification.

Maintenance Plan for Levee Project

In order to get accreditation from FEMA of one or more levee systems, it will be necessary for the District to comply with all criteria listed in Section 65.10 of the NFIP regulations. One of the requirements listed is under these regulations is that the levee system must be maintained in accordance with an officially, adopted maintenance plan. Future maintenance funding may come in part from a bond issue, if bond counsel agrees that future "capital maintenance" is an allowable use of bond proceeds. Other maintenance funding would come from the District's on-going levy authority, or perhaps from a local option levy.

Funding Considerations – Bond Issue

The Milton-Freewater Water Control District expects to put a bond measure before the voters in November, 2010. Filing for the measure, and voter pamphlet language, are required to be submitted to Umatilla County in early September. The M-F WCD engineer will assist the District is calculating the bond amount needed for design and construction of improvements, and any allowable maintenance for items listed above. Project elements listed on page 4 would be accomplished from the bond proceeds.

Additional Related Projects

Grade Control Structure: Down-cutting of the river bed below Nursery Bride undermines the stability of the levee and also limits the ability of ESA listed steelhead and bull trout to migrate at lower flows to their spawning areas in the upper Walla Walla Basin. This is particularly significant for fish trying to enter the fish ladder located just up stream from the toe erosion location, where the erosion has caused a "jump" at one of the entrances.

Recognizing this issue, the US Army Corps of Engineers (USACE) has assessed and designed a grade control fix for the site that will improve fish passage and stabilize the river bed down cutting. As the Milton-Freewater Water Control District (M-F WCD) had to decline sponsorship, the Army Corps is working with the Hudson Bay District Improvement Company (HBDIC) as the "sponsor" for the project. Once the project is completed, HBDIC will be responsible for maintenance of the improvements. Funding to HBDIC for maintenance of the grade control structure may be provided through an agreement with CTUIR and BPA using BPA dollars.

The estimated cost for engineering and construction of the Grade Control Structure is $750,000. The CTUIR Fisheries program is willing to commit a portion of their BPA funds to provide matching funds in the amount of $250,000 for final design and construction of a grade control/fish passage project. The USACE "design team" will review the grade control project this fall and final engineering will be completed. Construction of the grade control structure and the toe erosion area is slated to take place in 2011 during the summer construction window to avoid impacts to ESA listed fish.

Couse Creek: The Walla Walla Basin Watershed Council (WWBWC) and Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Fisheries program are providing funds to assess and design site improvements at the mouth of Couse Creek as it enters the Walla Walla River. The purpose of this project is to improve fish passage into Couse Creek, improve in-stream habitat, and possibly stabilize the river bed down-cutting at that location. The WWBWC has written a grant proposal through DEQ/EPA's Section 319 program (*referenced in the Longer Range Solutions section of this document)* for an assessment of the levee stretch of the river to identify engineered solutions for this site, and see if other locations need similar repairs that can mutually benefit levee function, stream form, and native fish. Funding for the construction is unclear at this time, however it is probable that BPA funding through CTUIR will be used. A two year timeline is anticipated for the Couse Creek project. Engineering assessment and design will be done in late 2010 and early 2011. Construction of Couse Creek improvements and any levee stabilization repairs deemed appropriate will be accomplished during the summer of 2011.

Longer Range Solutions

Walla Walla Basin Watershed Council EPA 319 grant: An EPA 319 grant was awarded to the WWBWC in June, 2010. The grant amount is $106,000. An additional $40,000 in grant funds can be applied for in the next year. Some of that resource could be used to gather information that might assist with submittal of a vegetation variance application to the Army Corps of Engineers. Several in-kind and cash match arrangements are anticipated, including: $25,000 in-kind from WWBWC; $53,000 cash match from OWEB funds; $25,000 cash match from CTUIR; and in-kind match from O/S Project Team involvement.

The purpose of the grant is to develop a long term sustainable solution to the Milton-Freewater flood control levee that maintains the levee's initial purpose of flood control but also incorporates the environmental benefits of shade, channel shape, and valley form to assist in

attaining Temperature TMDL goals, fish passage at high and low flows, and improved fish habitat. This grant could significantly assist the M-F WCD in their analysis of the project "systems" as outlined by the Corps to assist in determining which improvements are most beneficial.

A modified levee and river channel can provide aesthetic and recreation enhancement for the community. Many communities around the northwest have transformed their levees and urban reaches of rivers into linear parks, enhancing the community's quality of life and property values. Rivers, when not hidden behind inaccessible levees, are treated as an asset and can attract a community desire to pursue additional restoration opportunities. Natural solutions, such as setbacks and a natural channel and floodplain, are likely to be the best ecological solutions for river function, but can also be the most sustainable and least costly remedy for maintaining the levee itself over the long haul.

The goal of this project is to develop and implement a plan that will look at opportunities to modify the existing levee in ways that will better allow flood events to move safely past the Milton-Freewater area while providing improved grade control for levee stability, fish passage, reduced sediment movement, and a healthier river geometry that will reduce thermal exposure and improve habitat for aquatic species. In addition, the solution will include a goal to allow much of the existing riparian vegetation to remain where it can assist with moderating river temperatures, provide cover, biomass, and other ecological functions for aquatic life, including ESA listed bull trout and Steelhead, and recently reintroduced Chinook salmon.

The grant proposal calls for the following assessment objectives:

- Validate the HEC RAS model
- Analyze HECRAS model, channel elevation survey data, and LiDAR data
- Evaluate opportunities for levee setback
- Identify possible levee setback sites
- Evaluate vegetation options
- Identify and evaluate critical grade control sites and options to address them
- Develop design for Couse Creek Confluence and Zell Diversion grade control

Options to be evaluated for this assessment include upstream off channel floodwater catchment basins, levee setbacks where landowners are willing, grade control structures, levee parkway enhancements, and other considerations the engineering team and the Oregon Solutions Team agree is worthy of evaluation. It is anticipated that initial engineering would focus on the Couse Creek area to focus on both enhancement of the creek for fish passage and channel stabilization.

Down-cutting of River Channel Referenced in 2010 Levee Inspection (also see pages 3 & 6): The M-F WCD is currently assessing how repairs and improvements to alleviate the channel down-cutting can take place. *The District's most immediate objective is to affect repairs that will be most beneficial and lead toward a FEMA map modification.* One option is for the District to fund these improvements through bond proceeds.

To engineer and construct the levee system to adequately address all down-cutting issues, significant funding will have to be secured. One avenue for such funding is Section 216 of the Flood Control Act which provides general authority for the Corps to review operations and complete projects, when found advisable due to changing physical, economic or environmental conditions. There are several steps in receiving assistance under this program. The Corps will conduct an "Appraisal Assessment" using operations and maintenance funding. This study would be conducted after a "letter of request" from the M-F WCD has been received by the Corps.

If based on the appraisal, a detailed study is warranted, the Corps will request funding to conduct a General Investigation (GI) study. The GI study is conducted in two phases: Reconnaissance and Feasibility. The Reconnaissance study develops a scope and cost for the feasibility study. The Feasibility Study identifies potential feasibility solutions and determines whether the Federal Government and the non-Federal sponsor should construct the project. Fifty percent (50%) of the cost of the feasibility study is paid by the non-Federal sponsor in the form of cash and in-kind services. The feasibility study is submitted to Congress for construction authorization. The non-Federal share of construction costs if thirty-five percent (35%). Operation and Maintenance costs thereafter are 100% non-Federal.

Oregon Solutions Milton-Freewater Levee Project Agreements

All parties acknowledge that the best solutions to the Milton-Freewater Levee Project depend upon collaboration of all parties at the table. Accordingly, they recognize that each party has a unique perspective and potential contributions to make, both at the table and on the ground, and legitimate interests that need to be taken into account to achieve the overall success of this project. The following sections provide the "stakeholder commitments" described above in the "Purpose of the Declaration of Cooperation."

State Legislative Representative

Legislative representation is critical to the success of the Oregon Solutions Milton-Freewater levee project. Serving as Convener for the Project Team is Senator David Nelson. Through his long standing service to Eastern Oregon, Senator Nelson has wide knowledge of economic and social needs for the Milton-Freewater area. Senator Nelson remains committed to assist this project with the development and implementation of a work plan to address Walla Walla River flood control structure needs. Senator Nelson has expressed interest in doing the following:

- Senator Nelson will continue to offer his time as Convener for this project and attend work group meetings as time permits.
- Continue to provide leadership for the project and encourage all parties to work in a collaborative effort toward sustainable efforts on Walla Walla levee issues.
- Speak in the region on the importance of the short and long-range flood control efforts that are being discussed for accomplishment in the Walla Walla Basin.
- Sponsor or support legislation favorable to this project, including sensible statutory changes that address local government relationships with state and federal agencies.
- Support efforts to enhance the success of this project including work with USACE on vegetation removal issues and with FEMA on levee accreditation issues.
- Endorse Congressional funding requests for the project and offer lobbying assistance for them.
- Senator Nelson will convene the Project Team at least quarterly following the signing of the Declaration of Cooperation, in order for the process to continue to its successful conclusion.

David Nelson — 8/18/2010

Senator David Nelson, District 29 — **Date**

Bonneville Power Administration

The Bonneville Power Administration (BPA) is a federal power marketing agency within the U.S. Department of Energy. BPA serves the Pacific Northwest through operating an extensive electricity transmission system and marketing wholesale electrical power at cost from 31 federal dams, one nonfederal nuclear plant at Hanford, Washington, and some nonfederal power generators such as wind projects. BPA also implements a large fish and wildlife program, with hundreds of fish and wildlife projects identified through the Northwest Power and Conservation Council's fish and wildlife program. BPA works diligently to protect, mitigate, and enhance fish, and wildlife populations and their habitats affected by the construction and operation of the federal Columbia River dams from which the BPA markets power. BPA works with numerous entities in the Walla Walla Basin on fish and wildlife mitigation projects. Key amongst the partners are the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the Walla Walla Basin Watershed Council, and the state and federal fish & wildlife agencies. As explained by the context provided in the "Purpose of Declaration of Cooperation" section, nothing in this "stakeholder commitment" to collaborate and identify potential contributions shall be construed to commit BPA to fund actions in the Walla Walla Basin.

As a party to the Oregon Solutions Milton-Freewater Levee project process, and part of the Project Team, BPA may potentially contribute to the actions identified by the parties in the Declaration in the following manner:

- Sarah Branum of BPA will continue to serve on the Oregon Solutions Project Team. As time is available, she will also participate in work groups that study issues and propose solutions to the Project Team.
- In working on solutions to repair Walla Walla River flood control structures, BPA will continue to provide process expertise as it may relate to enhancement of the environment and fish habitat
- BPA will work with its partners to assess the potential for providing funds to other Project Team partners, or funding projects that might collaterally support the Project Team's purpose, as they relate to maintenance and enhancement of watershed health. Individual projects being discussed are:

a. Encouraging the sponsorship and cost sharing of a grade control structure project downstream of the Nursery Bridge fish ladder with the U.S. Army Corps of Engineers, by facilitating an agreement between BPA partners on funding and maintenance responsibilities.
b. Working with CTUIR on Couse Creek to enhance fish passage, if deemed appropriate by CTUIR and BPA.
c. Carefully monitoring the condition of the stilling basin at Nursery Bridge and participating in discussions for repair in order to protect BPA's investment in the fish ladder that is supported by the stilling basin.

Bonneville Power Administration

August 12, 2010
Date

Business Community

The Milton-Freewater area is represented by numerous people who desire to enhance the livability of their community. The Oregon Solutions Project Team is fortunate to have two community representatives serving on.

- Ron Brown is an orchardist and owns the Blue Mountain Cider Company & Watermill Winery. He also serves on the School District Budget Committee and is active in numerous community activities.
- Mike Garton is a Doctor of Optometry serving the Milton-Freewater community. He is also active in the Rotary Club and Chamber of Commerce.

These persons offer to assist this Oregon Solutions project by:

- Continuing to serve on the Project Team
- Serving in a community leadership capacity to encourage partnerships to enhance the success of the project.
- Participate in public information effort in order to give the community the best information available to judge the benefits of passing a bond measure to repair flood control structures.
- Offer suggestions for project implementation and encourage others to become engaged in forming a strategic plan which will strengthen the local economy.

Ron Brown — 3/30/10

Ron Brown — Date

Mike Garton — 3/30/10

Mike Garton — Date

City of Milton-Freewater

The City of Milton-Freewater is represented on the Project Team by Mayor Lewis Key and City Manager Linda Hall. The City contributed $10,000 for project administration expenses for the Oregon Solutions process. [An additional $10,000 was provided for O/S expenses by the Milton-Freewater Water Control District prior to the Board's resignation] Following the Army Corps designation of "unacceptable" for the Walla Walla River levee system, FEMA issued a preliminary floodplain map showing most of the city to be in a flood zone. City residents are now extremely concerned with the new requirement for mortgage flood insurance. Although all of the levee sections deemed deficient by the Corps are outside the City's corporate limits, the City of Milton-Freewater has assumed the leadership in finding solutions to repair and maintain the levee structure.

- The City will continue to be represented by Mayor Key and City Manager Linda Hall on the Project Team. They will provide municipal leadership in the Project Team's efforts to repair and maintain the levee structure.
- Milton-Freewater will work with responsible parties to adopt a realistic FEMA Floodplain Rate Map during the interim repair phase, and thereafter, to amend the map through FEMA's accreditation process.
- Milton-Freewater will work in partnership with DLCD to provide the Milton-Freewater community information on flood insurance for mortgage holders.
- ***Milton-Freewater will work with Umatilla County to find an alternative for the in-active Milton-Freewater Water Control District which will then lead to levee repairs and a bond election.***
- Milton-Freewater will provide leadership in the Oregon Solutions process and keep all parties informed of activities related to flood control efforts. The City will champion efforts of the Project Team and be an informational conduit to community groups and the news media.

Lewis A Key
Mayor Lewis Key

4/12/10
Date

Council Members:

Bradley Hubert

Steve Dein

Orin Logan

Edwin E. Chesnut

Jeff Anliker-absent

Confederated Tribes of the Umatilla Indian Reservation

The Cayuse, Umatilla and the Walla Walla people make up the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). Our three bands were brought together through an 1855 Treaty and became a single government in 1949 when our leaders adopted a Constitution and By-laws. Our Board of Trustees exerts the Tribes sovereign authority to protect the rights reserved by the Treaty of 1855 and to promote the interests of the members and residents of the Umatilla Indian Reservation. We currently have over 2,800 tribal members.

Our organization chart shows numerous Departments each having unique administrative responsibilities. One of these is the Department of Natural Resources, under which are program activities including Fisheries, Water Resources and Environmental Planning and Rights Protection. The Confederated Tribes are not strangers to environmental issues in the Walla Walla River Basin as evidenced by the ongoing Walla Walla River Basin Feasibility Study. This project partners CTUIR with the Army Corps of Engineers and focuses on the restoration and management of a viable ecosystem within the Basin. Another example of active participation on environmental issues is seen in the Oregon Solutions Milton-Freewater Walla Walla River levee project.

As a partner in the Oregon Solutions process, CTUIR will assist with the following:

- Eric Quaempts, Director of the Department of Natural Resources, serves on the Oregon Solutions Project Team. He is often represented by Fish Biologist Jed Volkman, who also serves on two work groups.
- CTUIR will provide technical support on work groups and in Project Team discussions as they relate to salmonid fish, and river form and function.
- CTUIR will consider partnering with the Bonneville Power Administration and the Walla Walla Basin Watershed Council (WWBWC) on projects having a nexus between levee repairs and enhancement of watershed health on the Walla Walla River. These projects may include: the Couse Creek area; the grade control structure down-stream of the drop structure, and the drop structure and stilling basin area.
- CTUIR and the WWBWC will partner on longer range sustainable solutions for the Walla Walla River which enhance flood control as well as environmental benefits to improve fish habitat.

Elwood H. Patawa

Elwood H. Patawa, Chairman
Board of Trustees

8-11-10
(Date)

Department of Land Conservation and Development (DLCD)

DLCD is charged with facilitating well prepared and coordinated comprehensive plans for cities and counties to assure the highest possible level of livability. Our mission statement indicates we support our partners in creating and implementing comprehensive plans that reflect and balance the statewide planning goals, the vision of citizens, and the interests of local, state, federal and tribal governments.

Our role in the Milton-Freewater Levee Oregon Solutions project will be to provide technical assistance to the Project Team partners and the City of Milton-Freewater as they develop strategies to repair, maintain, or reconfigure the flood control structures important to the area's economic vitality and community livability. Following are key department concepts related to this Oregon Solutions effort:

- DLCD's NFIP Coordinator will continue to participate on the Project Team, and as time permits, be assisted by DLCD's NFIP Mapping Specialist. Through participation in the Oregon Solutions process DLCD will help to find and support solutions that have broad based support and provide sustainable flood hazard reductions.
- DLCD will offer information and assistance related to accreditation of the levee by the Federal Emergency Management Agency.
- DLCD will assist Milton-Freewater with creation and implementation of a sound flood hazard program that complies with the National Flood Insurance program and State of Oregon planning Goal 7.
- DLCD will assist with public outreach needed to launch Milton-Freewater's new flood hazard program, including planning and attending events, providing sample press releases, obtaining and producing literature, and organizing or providing training to insurance agents, real estate agents, surveyors, building inspectors, and others who together implement the National Flood Insurance Program.
- DLCD will communicate activities of the Oregon Solutions team with other state agencies that have flood hazard identification and mitigation duties such as the Department of Geology and Mineral Industries and Oregon Office of Emergency Management.

5/19/10

Richard Whitman
Director
Department of Land Conservation and Development

Date

Department of State Lands

The mission of the Department of State Lands (DSL) is to ensure a legacy for Oregonians and their public schools through sound stewardship of lands, wetlands, waterways, unclaimed property, estates and the Common School Fund. In accordance with this mission, DSL protects and conserves waterways and wetlands through administration of Oregon's Removal-Fill Law, enacted in 1967, as well as certain other statues relating to activities involving removal-fill in waters of the state.

Under the Removal-Fill Law, the Department seeks to protect, conserve and ensure the best use of waters of the state, while protecting public navigation, fishery and recreational uses. Authorization is needed from DSL for most activities involving removal or filling of greater than 50 cubic yards of material in waters of the state. Waters of the state include rivers, intermittent and perennial streams, lakes, ponds, and wetlands. The volume threshold for 50 cubic yards does not apply in designated Essential Indigenous Anadromous Salmonid Habitat Areas (ESH) or in state scenic waterways. ESH streams contain fish species that have been listed as sensitive, threatened or endangered by a state or federal agency.

As part of the Oregon Solutions process, certain projects on the Walla Walla River have been identified that will help repair levee and other flood control structures, while incorporating environmental and economic values. DSL staff can contribute knowledge and expertise to assist in the design and permitting phases of this project. The Resource Coordinator for the Northeast Region will serve on the Project Team, and the Northern Region Wetlands/ Waterways Operation Manger will also be involved in the process as well.

- DSL will continue to provide representation on the Project Team and will provide assistance to various work groups as staff time permits.
- DSL will continue to provide guidance during the permitting phases of projects proposed as part of the Oregon Solutions process.
- DSL will continue to cooperate and engage in discussions with other state, federal and local agencies concerning the permit process and any future implementation of projects that are identified by this Oregon Solutions process.
- DSL will be guided in its participation throughout the Oregon Solutions process and any permitting decisions by applicable statutory and regulatory process.

Louise Solliday, Director, DSL

7/20/10
Date

Governor's Economic Revitalization Team (ERT)

Under the direction of the Governor, the Economic Revitalization Team focuses the work of state agencies together with local interests to increase the level of success in resolving difficult community problems. In designating this Milton-Freewater Oregon Solutions project, Governor Kulongoski has indicated his strong support to bring state resources and attention to a collaborative approach to help solve long standing flood control issues. The Governor has further directed that agencies treat projects arising from the Project Team as high priorities within each agency.

Economic Revitalization Team efforts bring a special significance to the Milton-Freewater Levee project. Four state agencies sit on the Project Team and are involved in one or more aspects of this project. ERT involvement will also allow greater local access to state resources and assistance.

Through ERT actions, the public/private involvement in this project will significantly enhance flood reduction efforts in the following ways:

- Scott Fairley, Eastern Oregon ERT Coordinator will continue to serve as the ERT representative on the Milton-Freewater Oregon Solutions Project Team
- Scott Fairly will also serve on one or more project work groups, as time permits
- The ERT will identify early on the need for and requirements of state-issued permits for projects under consideration by the Project Team
- The ERT will provide coordination, as needed, with DLCD as that Department assists with the flood plain map adoption process and insurance issues
- The ERT will help coordinate , as needed, programs and processes that may be offered by the Oregon Department of Water Resources
- The ERT will provide, as needed, coordination assistance with the Governor's Natural Resource Office on projects as may be needed
- The ERT will coordinate efforts, as needed, with the Department of State Lands in the review and approval of permits

Ray Naff, Director — 8/18/10 Date

Intergovernmental Relations & Economic Revitalization Team for Governor Ted Kulongoski

Hudson Bay District Improvement Company (HBDIC)

The Hudson Bay District Improvement Company was initially formed in 1903 and then organized as a Water Improvement District under ORS Chapter 554. It has a five (5) member board. Water rights are held by the District and it diverts water as requested for irrigation purposes. Diversion dams, canals, pipes and some creeks are used for these irrigation purposes. The HBDIC has a contract with BPA to maintain the facilities at the Nursery Bridge and Little Walla Walla River diversion. As a continuing partner in this Oregon Solutions process, HBDIC will:

- Be represented by John Zerba on the Project Team. John will offer his knowledge and perspectives on short and long range proposals under discussion.
- Encourage the Tribes and BPA to continue their partnerships for funding of maintenance and improvements to improve the Walla Walla River channel and levee system
- Encourage the community to be engaged in fund raising to assist in this project. To assist in the passage of a November bond measure, the District will be a cheerleader in the community to help citizens stay focused on the need to fix flood control levee deficiencies.

Tim DeRuwe

Tim DeRuwe, Chairman, HBDIC

18 aug 2010

Date

Milton-Freewater Chamber of Commerce

The Milton-Freewater Chamber of Commerce is an organization of professional and business members who together in a planned manner promote commerce, agriculture, community spirit and the quality of life in the Milton-Freewater area. The Chamber provides a full service information center. The Chamber also hosts the Muddy Frogwater County Classic Festival in August, the Annual Awards Banquet in February and is a major sponsor for the Cinco de Mayo celebration held in May. Through its activities and diverse membership, the Chamber of Commerce actively supports business retention and development in the community. The networking of Chamber members is invaluable as it relates to this project. The adoption of a flood map which is reasonable and based on accurate information is paramount for the economic health of the community. To that end the Chamber will:

- Be represented by Cheryl York, Director of the Chamber of Commerce, on the Oregon Solutions Project Team
- Provide information to their members as it relates to this project.
- Encourage the community to be engaged in fund raising to assist in this project.
- Provide factual information on any election measure when put before the voters.
- Be a cheerleader for the community to help citizens stay focused as flood control deficiencies are addressed and specific levee structures are repaired.

Cheryl York

Milton-Freewater Chamber of Commerce
Board Chair

8-18-10

Date

Milton-Freewater Water Control District

The organization and powers of the Milton-Freewater Water Control District (M-F WCD) are outlined in ORS Chapter 553. As a special district, the authorities of this District may include:

". . . acquiring, purchasing, constructing, improving, operating and maintaining drainage, irrigation, and flood and surface water control works in order to prevent damage and destruction of life and property by floods, to improve agriculture and other uses of lands . . . A water control district . . . may also . . . maintain works and facilities for the secondary purposes of . . ... recreation, wildlife, fish life and water quality enhancement." (ORS 553.020)

Maintenance of the Walla Walla River levee and associated structures, which were constructed by the U. S. Army Corps of Engineers (USACE), is the responsibility of the District. The M-F WCD has a continuing annual property tax levy of .0737 per $1,000 of assessed value which provides approximately $25,000 annually for operations. Over the years, this amount of funding has been insufficient to maintain the flood control structures, as well as repair them after high water events. In 2006, the Corps of Engineers first notified the District that the levee would be given a rating of "unacceptable" unless deficiencies were corrected. The M-F WCD placed three bond measures before the voters, however none successfully passed.

Due to cancellation of liability insurance in response to the "unacceptable" rating given by USACE, at the end of December 2009 all M-WCD board members resigned. Also as a consequence of the Corps' rating, the Federal Emergency Management Agency (FEMA) has published a flood map which places the City of Milton-Freewater in a flood zone. This action will require Umatilla County and Milton-Freewater to adopt flood zone implementing regulations, and mortgage holders will have to secure flood insurance.

In February, 2010 the Umatilla County Commission appointed new members to the Milton-Freewater Control District Board and the Special Districts Association of Oregon provided a limited liability policy for the District and its board members.

As the primary local government in charge of levee maintenance, the Milton-Freewater Water Control District has the responsibility to:

a. Secure funding to repair deficiencies within the levee structure
b. Secure on-going funding for maintenance of flood control structures
c. Contract with an engineering firm to design levee repairs and improvements
d. Work with the U.S. Army Corps of Engineers during inspection, design and repair of levee deficiencies, and thereafter, apply to the Corps to re-enter the Rehab and Inspection Program
e. In partnership with the City of Milton-Freewater and Umatilla County, apply to FEMA for a flood zone map modification once the levee has been satisfactorily repaired.
f. Be the primary entity to address vegetation management along the levee system with USACE.

As parties to the Declaration of Cooperation the Milton-Freewater Water Control District will:

- Serve on the Oregon Solutions Project Team and actively engage in their deliberations.
- Proceed to put a bond issue before the voters in November, 2010. This will necessitate actions in September 2010 to provide ballot measure language to Umatilla County, and provide a narrative in the voter's pamphlet.
- In its leadership role, and in partnership with other entities on the Oregon Solutions Project Team, proceed to carry out the responsibilities outlined in (a) through (f) above.

Milton-Freewater Water Control District Board Members

Manford Anliker, President — 8/18/10 Date

Vern Rodighiero — 8/15/10 Date

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality

Headquarters
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
OTRS 1-800-735-2900

Oregon Department of Environmental Quality (DEQ)

DEQ's mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and waters. The Department will be involved with the Oregon Solutions Milton-Freewater project. Within the constraints of DEQ resources, the agency will do its best to coordinate and communicate DEQ's requirements, timelines and processes with other project participants.

DEQ will:

- Continue to cooperate and engage in discussions with other state, federal and local agencies on projects identified through the Oregon Solutions Milton-Freewater process.
- Be represented on the Project Team by the Economic Revitalization Team member from the Pendleton office, Pat Vernon.
- Be guided in this participation throughout the Oregon Solutions process by applicable statutory and regulatory process.

7/12/10

Dick Pedersen, Director, DEQ Date

Oregon Department of Fish and Wildlife (ODF&W)

The Mission of the Oregon Department of Fish and Wildlife is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The Agencies responsibilities include advising on habitat protection for fish and wildlife populations and educating the public on natural resources. Projects developed along the Walla Walla River to provide dependable and sustainable flood reduction will require consideration for the potential effects on fish and wildlife and their habitats.

- As part of the Milton-Freewater Oregon Solutions Project Team, ODF&W will provide resource information and leadership for the Oregon Solutions process. Through participation in the Oregon Solutions process, the Department will attempt to find solutions that have multiple values and broad based support to help craft levee projects and move them forward.

- Bill Duke, ODF&W District Fish Biologist will continue to serve on the Project Team and as time permits also participate on one or more work groups, such as the Vegetation Work-Group.

- ODF&W will provide expertise in, and advice on, the permitting process and will share knowledge concerning fish and wildlife populations and habitats, as it relates to design considerations for deteriorated sections of the levee.

- The Department will offer suggestions for funding opportunities for projects that nurture fish and wildlife protection.

Curtis E. Melin

Deputy Director, ODF&W

7/26/10

Date

United States Army Corps of Engineers (USACE)

The mission of the U. S. Army Corps of Engineers ("USACE") is to provide quality, responsive engineering services to the nation including:

- Planning, designing, building, and operating water resources and other civil works projects.

- Designing and managing the construction of military facilities for the Army and Air Force.

- Providing design and construction management support for other defense and Federal agencies.

The Walla Walla District of USACE agreed to provide a liaison to the Oregon Solutions (O/S) Project Team for the Milton-Freewater levee project whose goal is to provide dependable and sustainable flood reduction on the Walla Walla River. The Walla Walla District Office will support the Project Team by supplying information and expertise in Corps' levee operations, maintenance, regulatory process, planning authorities, hydraulic modeling and emergency response. Subject to the availability of funding and authority, USACE-Walla Walla District will:

- Provide a designated representative as point of contact on the O/S Project Team.
- Send representatives to participate in meetings and on work groups to develop strategy to present to the Project Team.
- Assist the O/S Project Team by providing input and knowledge on project and program opportunities.
- Review levee repair designs and provide technical advice regarding adequacy for regulations or permits.
- Following sponsor repairs or construction, provide technical advice and guidance on the eligibility for the USACE Rehabilitation and Inspection Program.
- Provide existing project data upon request for FEMA analysis and process

David A. Caldwell
Lieutenant Colonel, Corps of Engineers
District Commander

29 Jul 10
Date

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (Service) is a bureau within the Department of the Interior. Our mission is to work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service supports a wide range of important conservation initiatives, including assisting landowners who volunteer to manage their property for the benefit of fish and wildlife. To accomplish our mission, we work cooperatively with individuals, conservation partners, Tribal governments, and all levels of state and local government. Fish & Wildlife biologist John Stephenson from the La Grande Field Office currently serves on the Oregon Solutions Milton-Freewater Project Team.

- The Service will continue to be represented on the Project Team by John Stephenson.
- As time permits, John Stephenson, will serve on work groups and provide a lead role on the issues of vegetation removal.
- The Service will offer advice and recommendations to the Project Team as flood mitigation proposals are discussed to ensure an environmental balance is maintained and regulatory requirements are satisfied.
- The Service will provide technical assistance and review to the Project Team based on ecological principles, scientific knowledge, and a sense of moral responsibility to achieve the designated levee repair goals.
- The Service will provide written support to projects forwarded by the Project Team that satisfy all regulatory requirements and aid in the recovery of listed species.
- The Service will assist by offering knowledge of available funding opportunities targeted to levee rehabilitation projects under consideration.

Field Supervisor

3/11/10
Date

Umatilla County

The Umatilla County Commission is one of three parties to request the Governor's designation of this Oregon Solutions project. Commissioner Givens serves on the Project Team. Also assisting on this project are Director of the County Department of Land Use Planning Tamra Mabbott and County Public Works Director Tom Fellows. The three levee areas identified by the Army Corps of Engineers in need of repair are in unincorporated areas, and thus the County is in a key role to help facilitate the land use management and permit processes to achieve desired repair projects.

The County also has a primary role in helping determine what the best course of action is in light of the Milton-Freewater Water Control District Board having resigned.

As one of the lead public entities on this levee project, Umatilla County will:

- Have Commissioner Larry Givens continue to serve on the Project Team
- Will continue to offer the services of Tamra Mabbott and Tom Fellows, as they have the time to assist in this project. In particular, the County Planning Department has access to mapping, land use and tax lot information of interest to this project. The County will also be doing a parallel FEMA map adoption process and as requested will provide assistance to the City of Milton-Freewater during this process.
- Provide leadership through its Board by encouraging fund raising efforts from the private, state and federal sectors for the repair and maintenance of the Walla Walla River levee structure.
- Give priority, within county, state and federal laws and guidelines, to the issuance of permit applications.
- Will provide a leadership role along with the City of Milton-Freewater to continue the Oregon Solutions Project Team activities until all issues have been resolved.
- Accept the responsibility of keeping the community, Project Team, news media, along with other key parties informed on progress of this Oregon Solutions project.
- Will work with the Oregon Solutions Project Team on congressional funding requests for this Oregon Solutions project.

Dennis D. Doherty, Chair
Umatilla County Board of Commissioners

7-14-10
Date

BOARD OF COMMISSIONERS UMATILLA COUNTY STATE OF OREGON

Walla Walla Basin Watershed Council (WWBWC)

The Walla Walla Basin Watershed Council (WWBWC) was recognized by Umatilla County in 1994. The Council's activities include assessment of watershed conditions, planning and implementation of specific stewardship projects and programs aimed at improving the watershed, and education and outreach to citizens within and outside of the watershed. The WWBWC is governed by a 13 person Board of Directors and operates in partnership with other organizations which share the same interests. Such cooperation and education leads to efforts that improve and maintain a healthy watershed for fish, invertebrates, plants and people.

Brian Wolcott serves on the Oregon Solutions Project Team and also chairs a Work Group charged with exploring issues and problems that solve levee deficiencies and developing work tasks to address those deficiencies. The WWBWC has been instrumental in looking at repair projects and exploring how watershed enhancement can be incorporated in them. In those efforts, they work effectively with the Bonneville Power Administration and the Confederated Tribes of the Umatilla Indian Reservation.

As a partner in this Oregon Solutions project WWBWC will:

- Continue to be represented by Brian Wolcott on the Project Team and the Work Group
- Assist other interested parties in reviewing how levee repair projects can be incorporated into other projects that will enhance fish habitat and the watershed environment
- Continue to explore and implement longer range projects to enhance watershed health in this immediate Walla Walla River reach. This includes assistance with analysis on acceptable removal, or retention, of vegetation along the river.
- As resources allow, provide the use of the Watershed Council office facilities for meetings
- As may be available, provide data, materials and other forms of technical assistance to the project to enhance the likelihood of project success

Board Chair, WWBWC

8-16-10
Date

Appendices

Appendix I Governor Kulongoski's Oregon Solutions Letter of Designation

Appendix II Project Team Membership

Appendix III Congressional Support, US Representative Greg Walden

Appendix IV Letters of Support

- **i.** Environmental Protection Agency
- **ii.** National Marine Fisheries Service

Appendix V List of Project Team and Work Group Meetings

Appendix VI FEMA Flood Map for Milton-Freewater

Appendix VII Map Showing Location of Walla Walla River Structures

Appendix VIII Participating Entity Logos

APPENDIX I

THEODORE R. KULONGOSKI
Governor

July 17, 2009

Linda Hall
City Manager
City of Milton-Freewater
722 S Main Street
Milton-Freewater, OR 97862

George Gillette
Chair, Milton-Freewater Water Control Board
15 SW 10th
Milton-Freewater, OR 97862

Larry Givens
County Commission Chair
Umatilla County Courthouse
216 SE Fourth Street
Pendleton, OR 97801

Dear Ms. Hall, Mr. Gillette, and Mr. Givens:

I have received your letter requesting the Milton-Freewater Levee Repair project be designated as an Oregon Solutions project. After reviewing your letter and the assessment conducted by Oregon Solutions staff, I feel this project supports Oregon's Sustainable Community Objectives, encompassing environmental, economic, and community objectives. By this letter, I am designating this as an Oregon Solutions project and appointing Senator David Nelson as the convener.

The Oregon Solutions approach will help bring together the potential partners in a neutral and collaborative way to address issues and opportunities. By integrating and leveraging investments, this project has the potential to strengthen the ties between the public, private and civic sectors in your community.

I am pleased to see the Milton-Freewater community taking a collaborative approach toward finding a solution for the levee issue and look forward to hearing about your progress as an Oregon Solutions project team is assembled. Please keep me updated on this effort and thank you for your work and enthusiasm thus far.

Sincerely,

THEODORE R. KULONGOSKI
Governor

TRK:m:tj

STATE CAPITOL, 900 COURT STREET NE, SALEM OR 97301-4047 (503) 378-3111 FAX (503) 378-6827
WWW.GOVERNOR.OREGON.GOV

APPENDIX II

Milton-Freewater Oregon Solutions
Project Team

Convener: Senator David Nelson, District 29

Herb Bessey, Levee Safety Program Manager, USACE
Sarah Branum, F&W Project Manager, BPA
Diane Driscoll, NOAA Fisheries Biologist
Ron Brown, Milton-Freewater Orchardist/Businessman
Bill Duke, District Fish Biologist, ODF&W
Scott Fairley, Regional Coordinator, ERT
Tom Fellows, Umatilla County Road Master
Mike Garton, Milton-Freewater Physician/Community Leader
Larry Givens, Chair, Umatilla County Commission
Linda Hall, City Manager, Milton-Freewater
Christine Kelly, U.S. EPA, Region 10
Sarah Kelly, Resource Coordinator, DSL
Lewis Key, Mayor, Milton-Freewater
Tamra Mabbott, Director Umatilla Department of Land Use Planning
Milton-Freewater Water Control District Board Members: Manford Anliker, President;
Sam Hopkin-Hubbard, Vice-President; Brad Humbert; Roger Cosner; Vern Rodighiero
Eric J. Quaempts, Director, Dept. of Natural Resources, CTUIR (Represented by Jed Volkman)
John Stephenson, Fish & Wildlife Biologist, USF&W
Chris Shirley, NFIP Coordinator, DLCD
Pat Vernon, Water Quality Manager, DEQ
Brian Wolcott, Executive Director, Walla Walla Basin Watershed Council
Cheryl York, Director Milton-Freewater Chamber of Commerce
John Zerba, Secretary/Treasurer, Hudson Bay Irrigation Improvement District

Congressional Representation: Participating to provide resource and liaison with federal agencies:
Kathleen Cathey, Senator Wyden's Office
Elizabeth Scheeler, Senator Merkley's Office
Wade Foster, Congressman Walden's Office

Project Manager: Dick Townsend, Salem, OR

APPENDIX III

GREG WALDEN
SECOND DISTRICT, OREGON
DEPUTY WHIP

ENERGY AND COMMERCE
SUBCOMMITTEES:
OVERSIGHT AND INVESTIGATIONS
RANKING MEMBER
ENERGY AND ENVIRONMENT
COMMUNICATIONS, TECHNOLOGY, AND THE INTERNET

E-MAIL VIA WEBSITE:
http://walden.house.gov

Congress of the United States
House of Representatives

WASHINGTON, DC OFFICE
2352 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-3702
TELEPHONE: (202) 225-6730

DISTRICT OFFICES:
843 EAST MAIN STREET, SUITE 400
MEDFORD, OR 97504
TELEPHONE: (541) 776-4646
TOLL FREE: (800) 533-3303

1051 NW BOND STREET, SUITE 400
BEND, OR 97701
TELEPHONE: (541) 389-4408

1211 WASHINGTON AVENUE
LA GRANDE, OR 97850
TELEPHONE: (541) 624-2400

August 18, 2010

To Whom It May Concern:

The strong cooperative efforts that exist between various local, state and federal entities to improve the Milton-Freewater community through this Oregon Solutions project are truly commendable. Recognizing and creatively addressing the need to improve existing levee conditions are key to the economic and environmental vitality of the Milton-Freewater area. I offer my assistance to this effort as deemed appropriate and recognize and appreciate the community spirit embodied in this project.

Greg Walden
Member of Congress

APPENDIX IV

Letters of Support

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

SEP 24 2013

Dick Townsend
Oregon Solutions
Portland State University
NPCC - 720 URBN
Post Office Box 751
Portland, OR 97207-0751

Dear Mr. Townsend:

We are writing you, the Milton-Freewater Levee Project Manager, to express our support for and participation in this cooperative process.

At your suggestion, we are submitting this letter of support and participation in lieu of the proposed formal signatory page appended to the Declaration of Cooperation. As presently written, the Declaration of Cooperation would require several marked revisions for EPA to sign onto the document itself, so we are expressing our support this way instead.

The mission of the Environmental Protection Agency (EPA) Region 10 (covering Alaska, Idaho, Oregon, Washington and the approximately two hundred seventy Tribal governments in the Pacific Northwest and Alaska) is to protect and restore the environment of the Pacific Northwest and Alaska for present and future generations. Within this mission we are committed to using science to make sound decisions to: protect and restore ecosystems and ensure healthy air sheds and watersheds; prevent pollution through source reduction; reduce the generation of land, air, and water pollutants; cleanup contaminated sites; enforce federal environmental laws; and conserve our valuable resources. EPA Region 10 supports cooperative and collaborative processes that endeavor to protect, restore, and maintain a healthy and sustainable environment for all.

Our understanding is that the Oregon Solutions Milton-Freewater Levee Project is committed to providing sustainable flood damage reduction in an environmentally sound manner and is seeking assistance to meet this goal. In the near-term, this project is focused on fixing existing levee deficiencies in a manner that minimizes impacts to water quality, aquatic habitat, and other natural resources, including retention of at least some woody vegetation on the levees.

In the long-term, this project envisions solutions that are more ecologically sustainable than what the present levee system can provide and that are aimed toward attaining water quality and aquatic habitat needs while still providing dependable flood damage reduction. The latter actions could include solutions that are more natural than the present levee system, such as levee setbacks and a natural river channel and floodplain, at least in portions of the existing levee reach.

EPA is well-positioned to assist in these endeavors by emphasizing potential environmental effects and solutions. To this end:

- EPA intends to actively participate as part of the Milton-Freewater Oregon Solutions Project Team, and intends to provide technical resource information and leadership for the Oregon Solutions process. Through participation in the Oregon Solutions process, EPA will assist with trying to find solutions that have multiple values and broad based support toward protecting water quality and other natural resources while reducing potential flood impacts to the local community.
- Christine Kelly, EPA Environmental Scientist, is assigned to serve on the Project Team and as time permits also participate on one or more work groups, such as the Vegetation Removal Work-Group for up to one year, and extendable beyond that based upon supervisory approval and regional needs.
- EPA intends to provide expertise in, and advice on, watershed enhancement and environmental concerns relating to the near-term action of the Milton-Freewater Water Control District design parameters that address levee deficiencies.
- EPA intends to provide expertise in, and advice on, watershed enhancement needs and environmental concerns for the long-term goal of improving water quality, aquatic habitat, and ecological functions in the existing Milton-Freewater levee reach of the Walla Walla River Basin.
- EPA intends to provide information on various EPA programs that may have implications for the project.

While EPA supports this process and intends to participate toward its success, we also need to remind participants of the following EPA constraints:

- EPA's support of and participation in this project does not prevent EPA from taking any action, or refrain from taking any action, pursuant to its existing statutory or regulatory authorities.

- EPA's support of and participation in this project does not obligate EPA to expend appropriations or to enter into any financial obligation that would be inconsistent with Agency budget priorities. EPA's participation in this project does not exempt any participant from EPA policies governing competition for assistance agreements.

We thank you for inviting EPA Region 10 to participate in this important effort, and we look forward to working with you.

Sincerely,

Wenona Wilson
Manager
Ecosystems and Community Health Unit

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

September 1, 2010

Oregon Solutions – Attn: Lauren Beeney
P.O. Box 751
Portland, Oregon 97207

Re: National Marine Fisheries Service support for and participation in the Oregon Solutions Milton-Freewater, Oregon, Levee Project

Dear Mr. Townsend:

The National Marine Fisheries Service (NMFS) is a Federal agency, within the Department of Commerce' National Oceanographic and Atmospheric Administration, responsible for the stewardship of living marine resources and their habitat. The agency works to promote sustainable fisheries and to prevent lost economic potential associated with over fishing, declining species, and degraded habitat. As a continuing partner in this Oregon Solutions process NMFS will:

- Continue to participate in meetings of the Project Team and the subgroup Levee Vegetation Team, as time permits.
- Review proposals and provide technical advice based on established ecological principles and the best science available to develop both short and long-range plans that will provide flood risk reduction for the community and ecosystem enhancement measures that benefit NMFS Trust Resources.
- Assist the Project Team with understanding and navigating through the Endangered Species Act regulatory processes and consultation procedures on various infrastructure projects to give Project Team proposals the best chance of success.

NMFS looks forward to working with the Project Team to achieve the designated goals of providing dependable and sustainable flood reduction in an environmentally sound manner.

Sincerely,

Diane Driscoll

Diane Driscoll
NMFS Fishery Biologist

1

APPENDIX V

Project Team Meetings

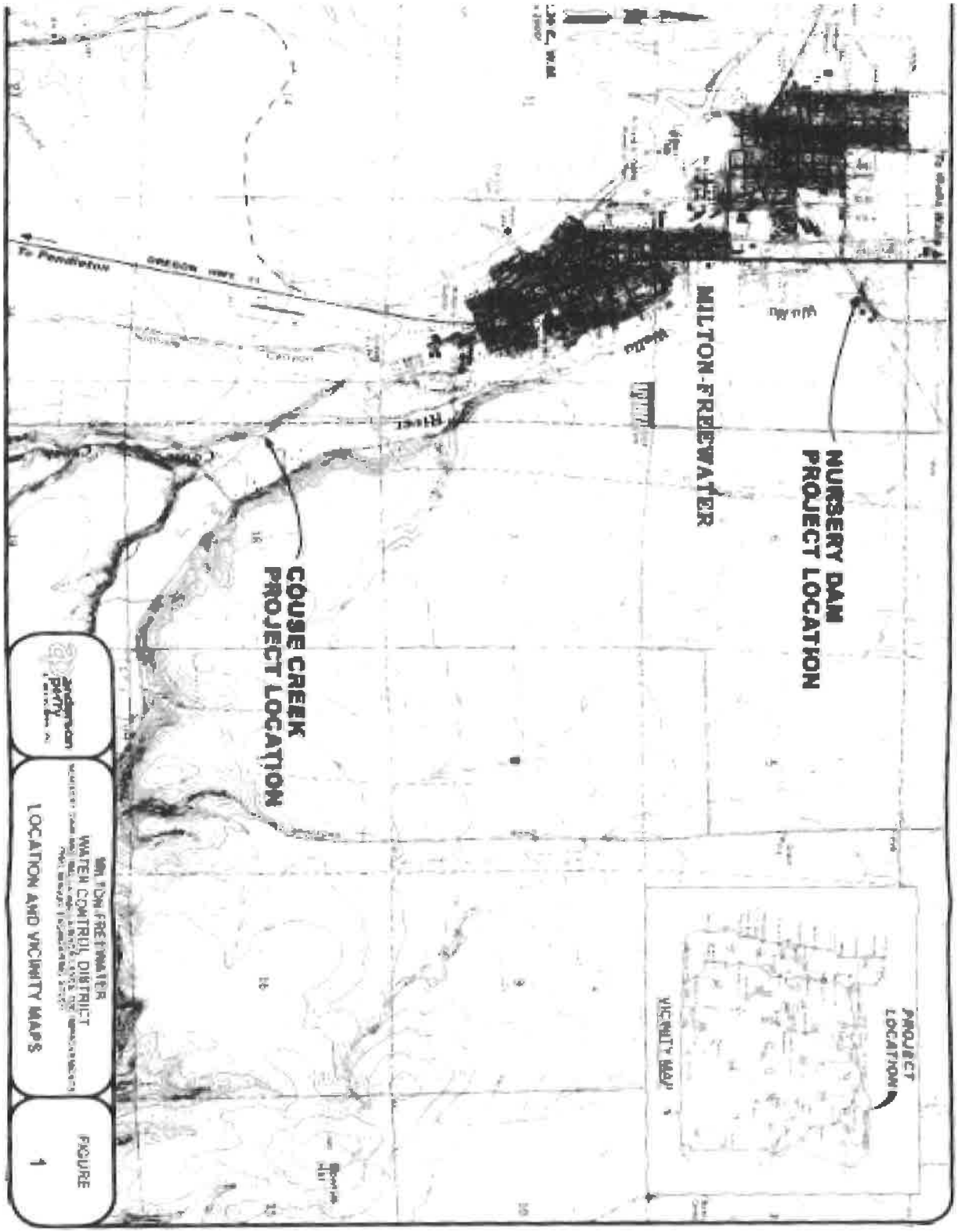
Oregon Solutions Project Team and Work Group meetings were held on the following dates. Project Team minutes are available through the City of Milton-Freewater. Appreciation is extended to Leanne Steadman, City Recorder, Milton-Freewater for compilation of these documents.

- September 14, 2009
- October 20,2009
- December 8, 2009
- January 26, 2010
- March 30, 2010
- May 18, 2010
- June 30, 2010
- August 18, 2010

APPENDIX VI

Milton-Freewater - Looking SE
Preliminary Map Flood Zones
AO
339
Google

APPENDIX VII



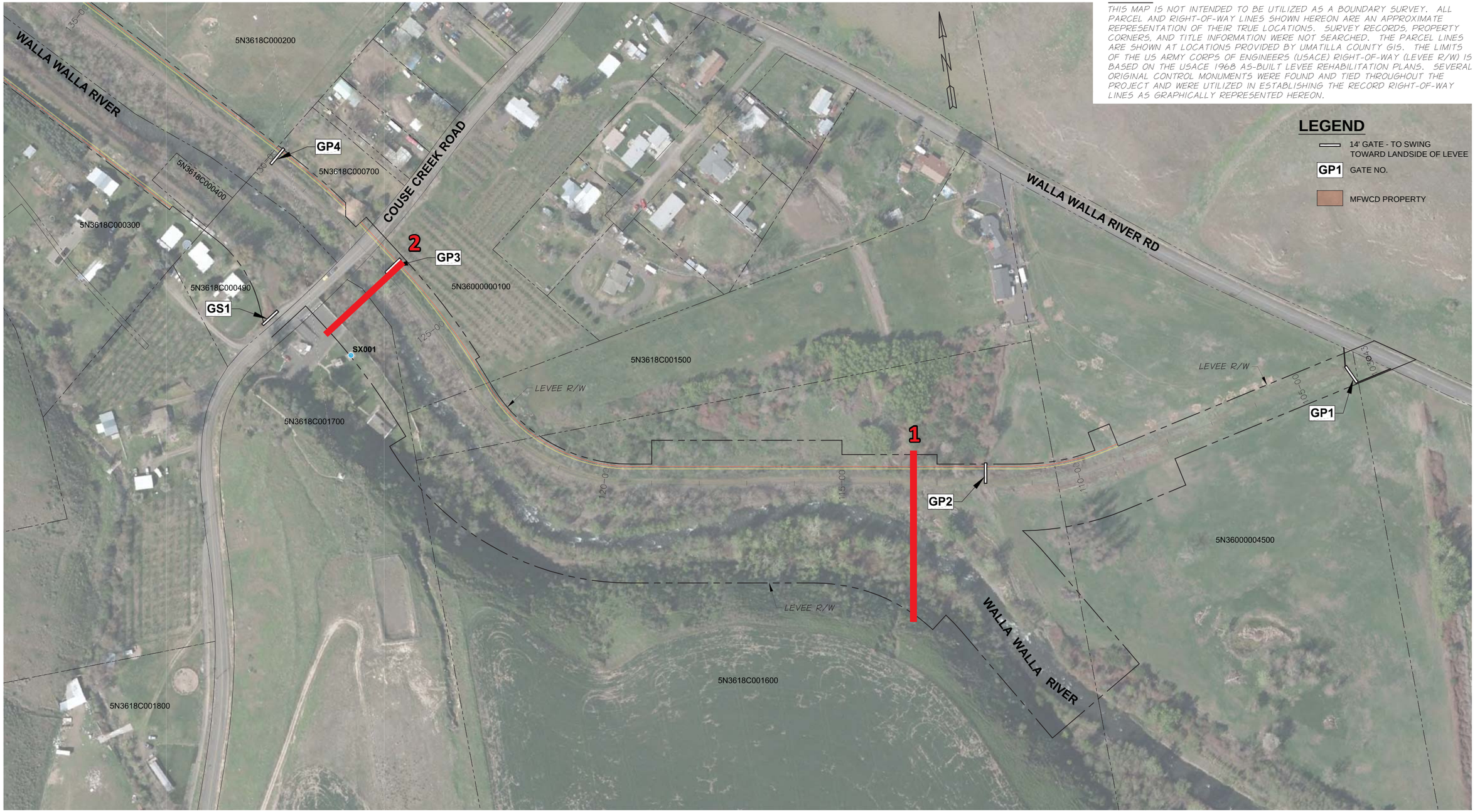
APPENDIX VIII

ATTACHMENT 4

Vegetation on Levee Cross Section

NOTE

THIS MAP IS NOT INTENDED TO BE UTILIZED AS A BOUNDARY SURVEY. ALL PARCEL AND RIGHT-OF-WAY LINES SHOWN HEREON ARE AN APPROXIMATE REPRESENTATION OF THEIR TRUE LOCATIONS. SURVEY RECORDS, PROPERTY CORNERS, AND TITLE INFORMATION WERE NOT SEARCHED. THE PARCEL LINES ARE SHOWN AT LOCATIONS PROVIDED BY UMATILLA COUNTY GIS. THE LIMITS OF THE US ARMY CORPS OF ENGINEERS (USACE) RIGHT-OF-WAY (LEVEE R/W) IS BASED ON THE USACE 1968 AS-BUILT LEVEE REHABILITATION PLANS. SEVERAL ORIGINAL CONTROL MONUMENTS WERE FOUND AND TIED THROUGHOUT THE PROJECT AND WERE UTILIZED IN ESTABLISHING THE RECORD RIGHT-OF-WAY LINES AS GRAPHICALLY REPRESENTED HEREON.



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DESIGNED BY J. WELLS			JOB NUMBER W156-18 / DATE SEPTEMBER 17 2012
DRAWN BY B. SAILER			ACAD FILE: MFWCDENC-A_1of1.dwg
REVIEWED BY –			COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.

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THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

anderson perry & associates, inc.
engineering surveying natural resources
WALLA WALLA, WA. LA GRANDE, OR.

MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE RIGHT-OF-WAY / SITE MAP

UPSTREAM OF COUSE CREEK ROAD BRIDGE

SHEET
1 OF 1

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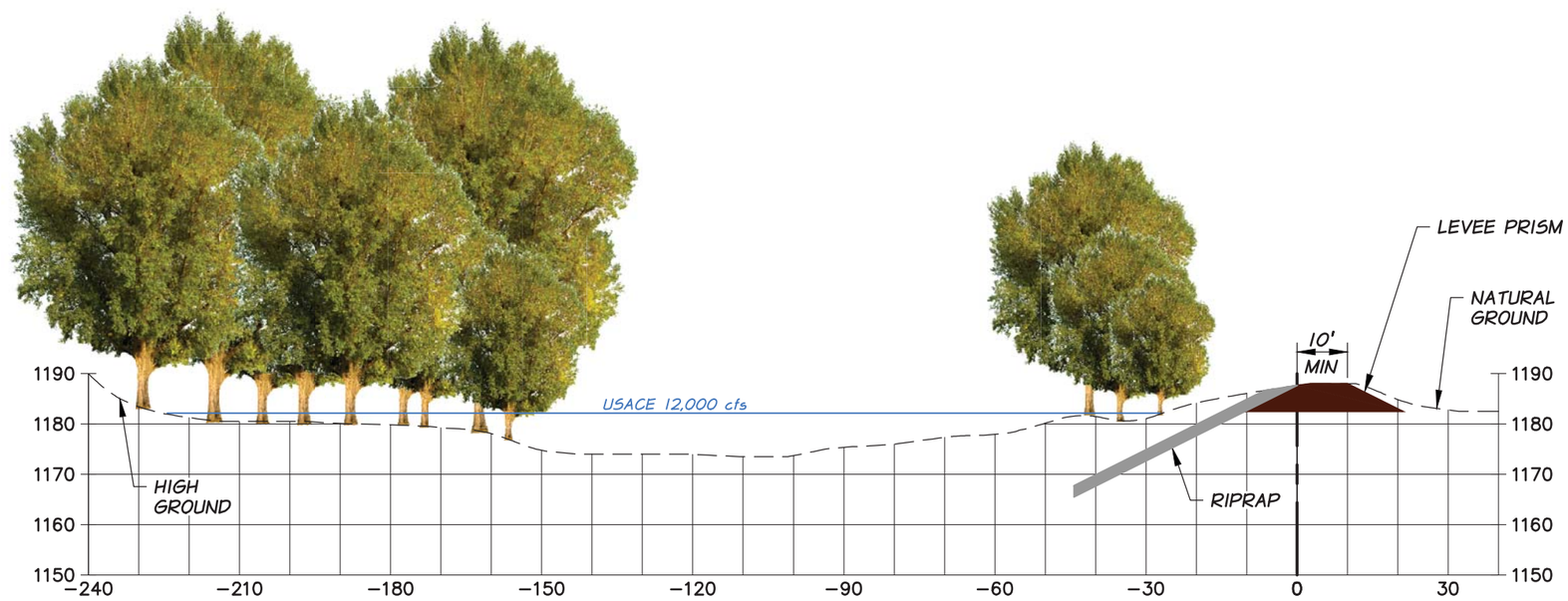
NOTES

1. CROSS SECTIONS FROM 2011 LIDAR SURVEY WITH GROUND SURVEY BY ANDERSON PERRY.
2. RIPRAP TOE DEPTHS AND THICKNESS ESTIMATED BASED ON 1968 US ARMY CORPS OF ENGINEERS (USACE) AS-BUILT LEVEE REHABILITATION PLANS. RIPRAP SIDE SLOPES ARE SHOWN GRAPHICALLY AND MAY VARY SLIGHTLY FROM THE GROUND SECTIONS.
3. LEVEE PRISM TEMPLATE SHOWN IS THE MINIMUM 10 FOOT TOP WIDTH AND 2H:1V SIDE SLOPES. LEVEE PRISM TEMPLATE IS FOR COMPARISON PURPOSES ONLY.
4. ESTIMATES FOR TREE HEIGHT, LOCATION, DIAMETER AT BREAST HEIGHT, AND DENSITY ARE BASED ON JANUARY 2013 LEVEE INSPECTION. WOODY VEGETATION AND BRUSH LESS THAN 2 INCHES IN DIAMETER ARE NOT SHOWN.



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anderson perry & associates, inc.
engineering - surveying - natural resources
LA GRANDE, OR. WALLA WALLA, WA.

MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
1

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NOTES

1. CROSS SECTIONS FROM 2011 LIDAR SURVEY WITH GROUND SURVEY BY ANDERSON PERRY.
2. RIPRAP TOE DEPTHS AND THICKNESS ESTIMATED BASED ON 1968 US ARMY CORPS OF ENGINEERS (USACE) AS-BUILT LEVEE REHABILITATION PLANS. RIPRAP SIDE SLOPES ARE SHOWN GRAPHICALLY AND MAY VARY SLIGHTLY FROM THE GROUND SECTIONS.
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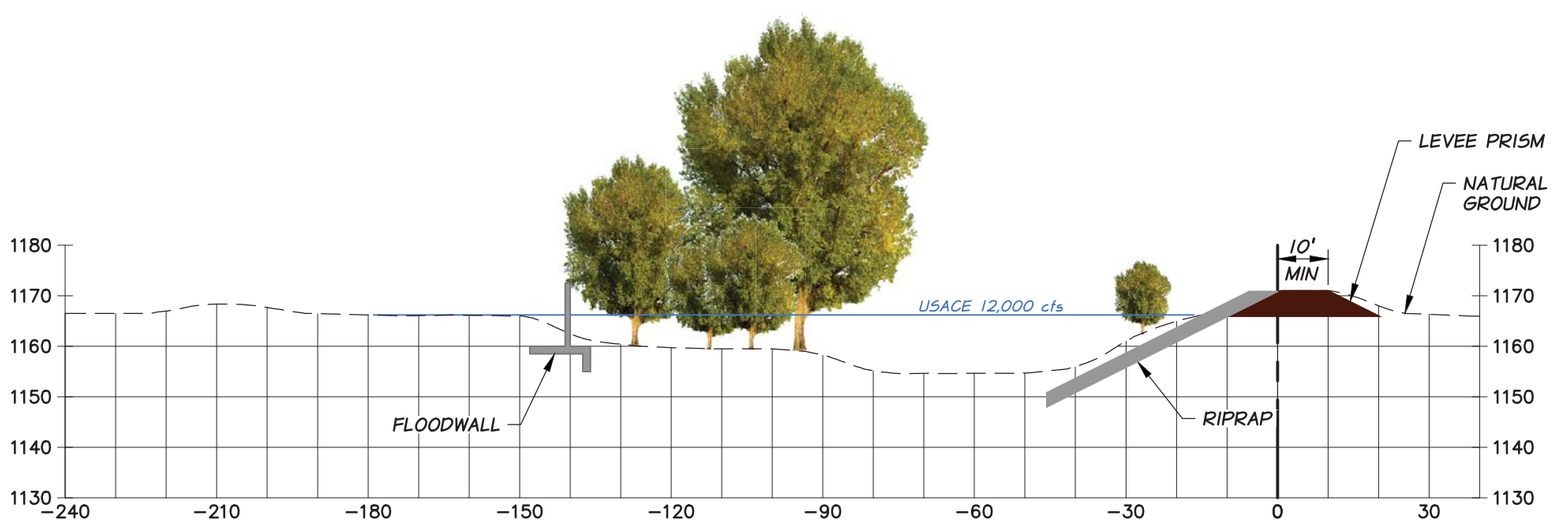

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anderson perry & associates, inc.
engineering • surveying • natural resources
LA GRANDE, OR. WALLA WALLA, WA.

MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
2

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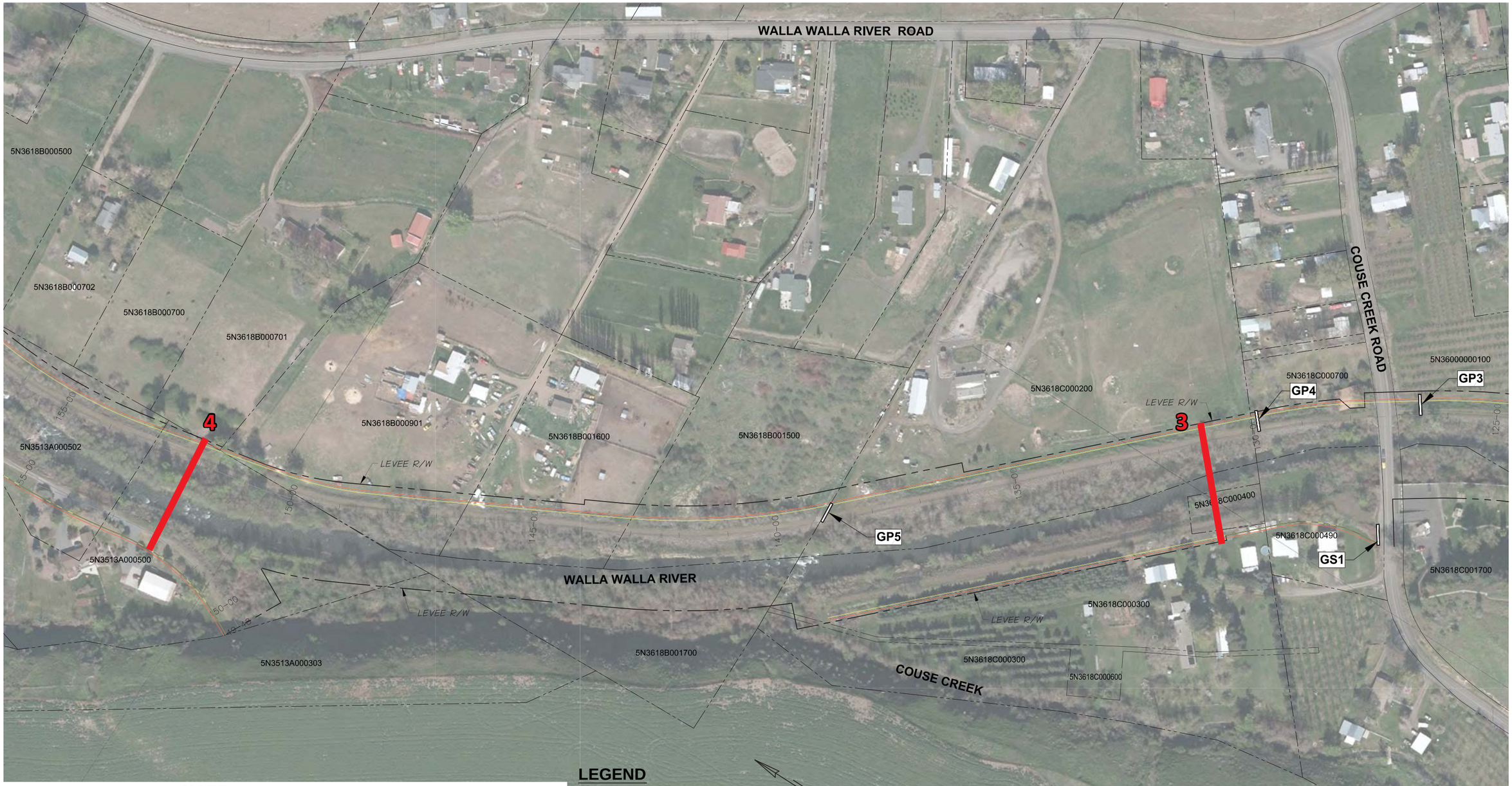

LEGEND

- 14' GATE - TO SWING TOWARD LANDSIDE OF LEVEE
- GP1 GATE NO.
- MFWCD PROPERTY

NOTE

THIS MAP IS NOT INTENDED TO BE UTILIZED AS A BOUNDARY SURVEY. ALL PARCEL AND RIGHT-OF-WAY LINES SHOWN HEREON ARE AN APPROXIMATE REPRESENTATION OF THEIR TRUE LOCATIONS. SURVEY RECORDS, PROPERTY CORNERS, AND TITLE INFORMATION WERE NOT SEARCHED. THE PARCEL LINES ARE SHOWN AT LOCATIONS PROVIDED BY UMATILLA COUNTY GIS. THE LIMITS OF THE US ARMY CORPS OF ENGINEERS (USACE) RIGHT-OF-WAY (LEVEE R/W) IS BASED ON THE USACE 1968 AS-BUILT LEVEE REHABILITATION PLANS. SEVERAL ORIGINAL CONTROL MONUMENTS WERE FOUND AND TIED THROUGHOUT THE PROJECT AND WERE UTILIZED IN ESTABLISHING THE RECORD RIGHT-OF-WAY LINES AS GRAPHICALLY REPRESENTED HEREON.

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HORZ. SCALE | VERT. SCALE

DESIGNED BY J. WELLS
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REVIEWED BY –

JOB NUMBER W156–18 | DATE SEPTEMBER 17 2012
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MILTON-FREEWATER WATER CONTROL DISTRICT

LEVEE RIGHT-OF-WAY / SITE MAP

COUSE CREEK ROAD BRIDGE
TO UNION STREET/GROVE SCHOOL BRIDGE

SHEET
1 OF 2

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\COUSE CREEK RD BRIDGE TO UNION STREET GROVE SCHOOL BRIDGE 1 OF 2.indd

NOTES

1. CROSS SECTIONS FROM 2011 LIDAR SURVEY WITH GROUND SURVEY BY ANDERSON PERRY.
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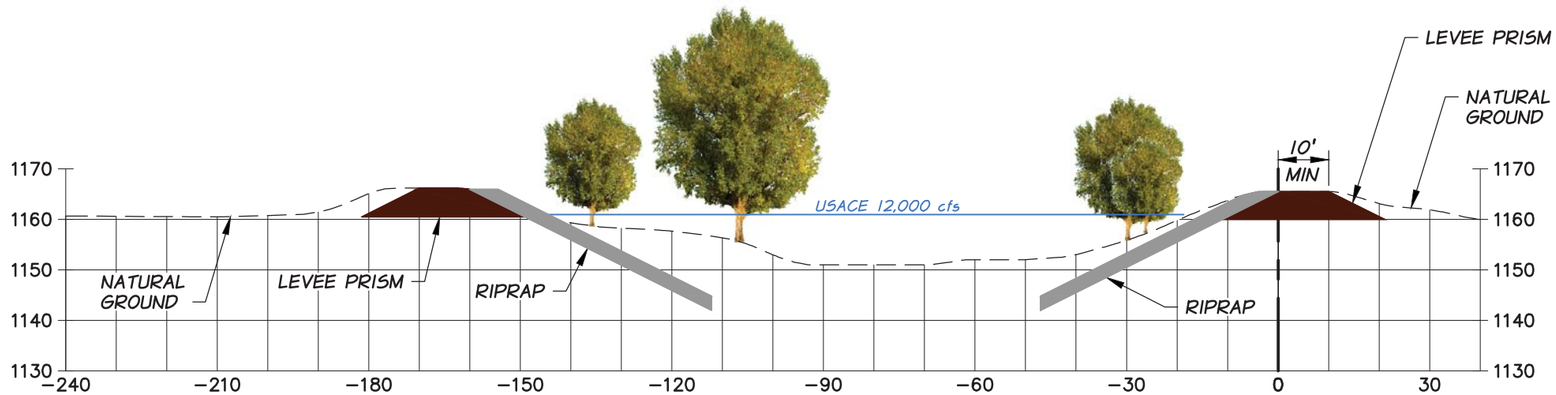

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
3

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 3.indd

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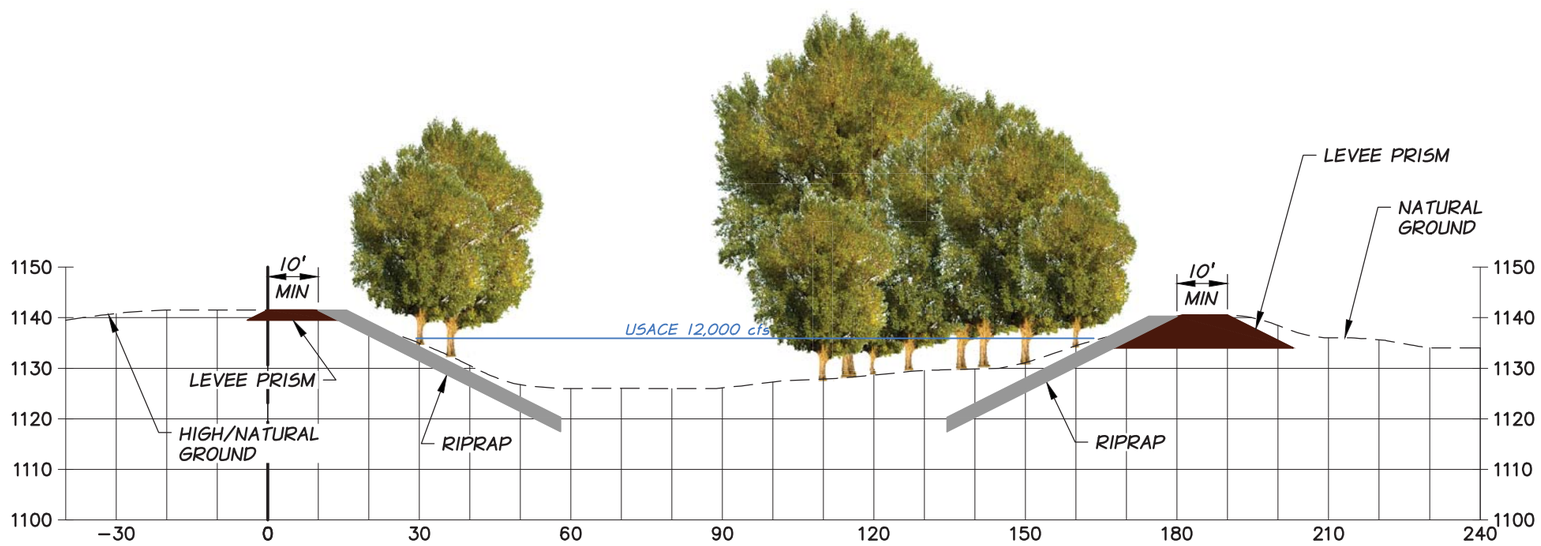

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
4

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 4.indd

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REVIEWED BY –

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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

COUSE CREEK ROAD BRIDGE
TO UNION STREET/GROVE SCHOOL BRIDGE

SHEET
2 OF 2

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\COUSE CREEK RD BRIDGE TO UNION STREET GROVE SCHOOL BRIDGE 2 OF 2.indd

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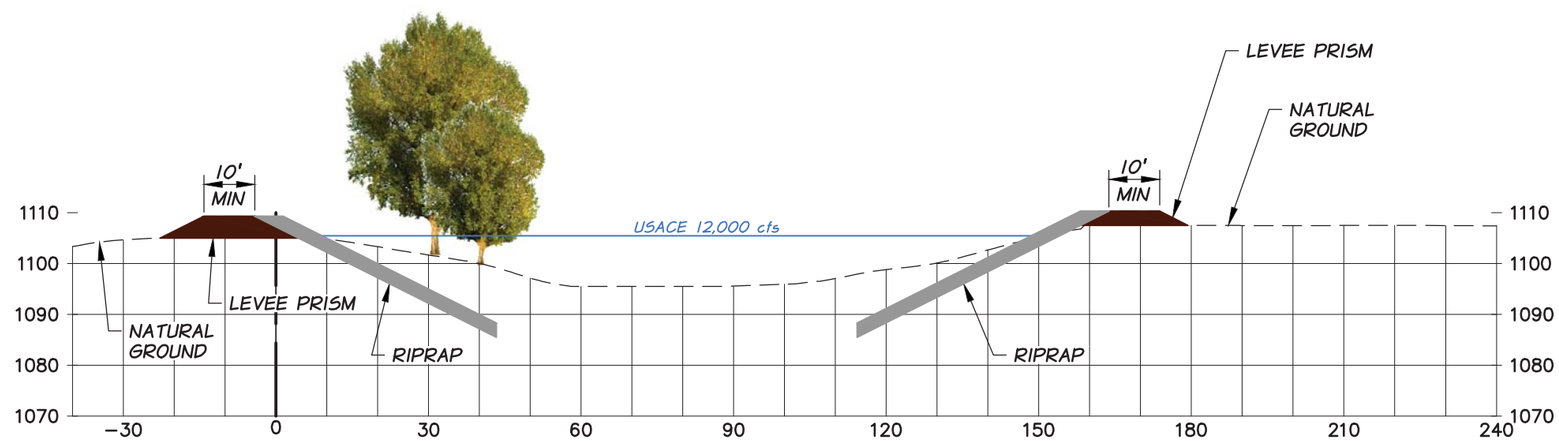

5

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
5

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 5.indd

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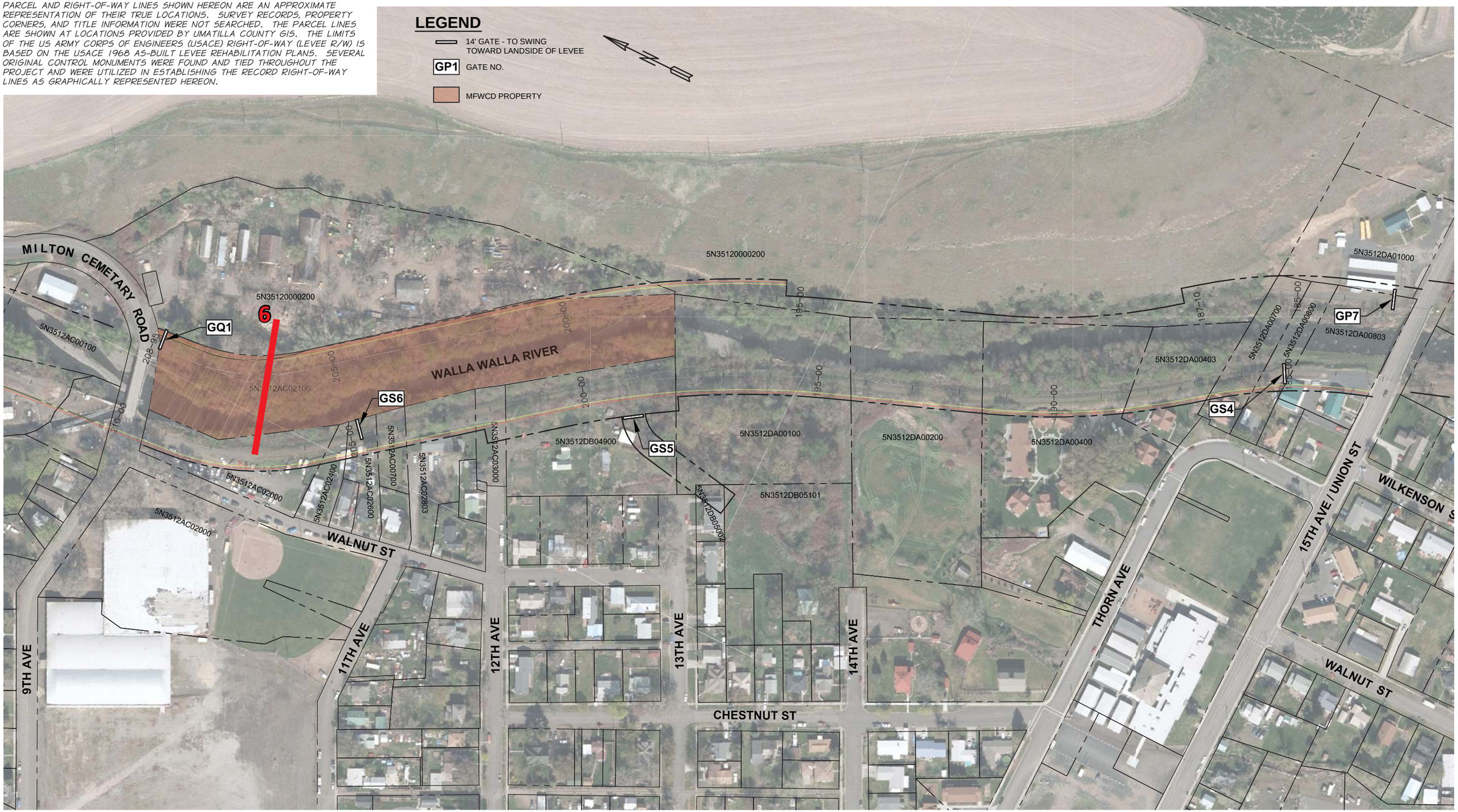

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REVIEWED BY –

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SCALE IN FEET

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MILTON-FREEWATER WATER CONTROL DISTRICT

LEVEE ENCROACHMENT MAP

UNION STREET BRIDGE
TO CEMETERY ROAD/GROVE SCHOOL BRIDGE

SHEET
1 OF 1

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\UNION STREET BRIDGE TO CEMETERY RD GROVE SCHOOL BRIDGE 1 OF 1.indd

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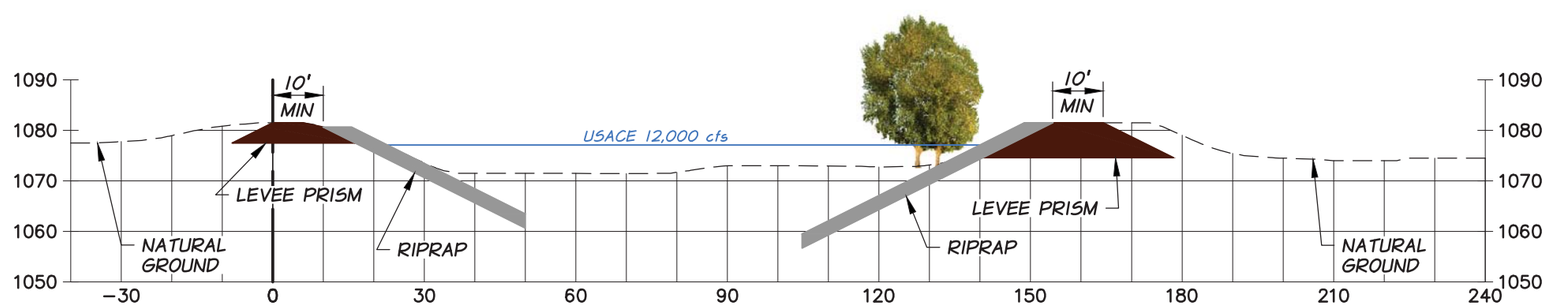

6

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
6

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 7.indd

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REVIEWED BY –

100 0 100 200 300
SCALE IN FEET

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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

CEMETERY ROAD BRIDGE TO NURSERY BRIDGE

SHEET
1 OF 3

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\CEMETERY RD BRIDGE TO NURSERY BRIDGE 1 OF 3.indd

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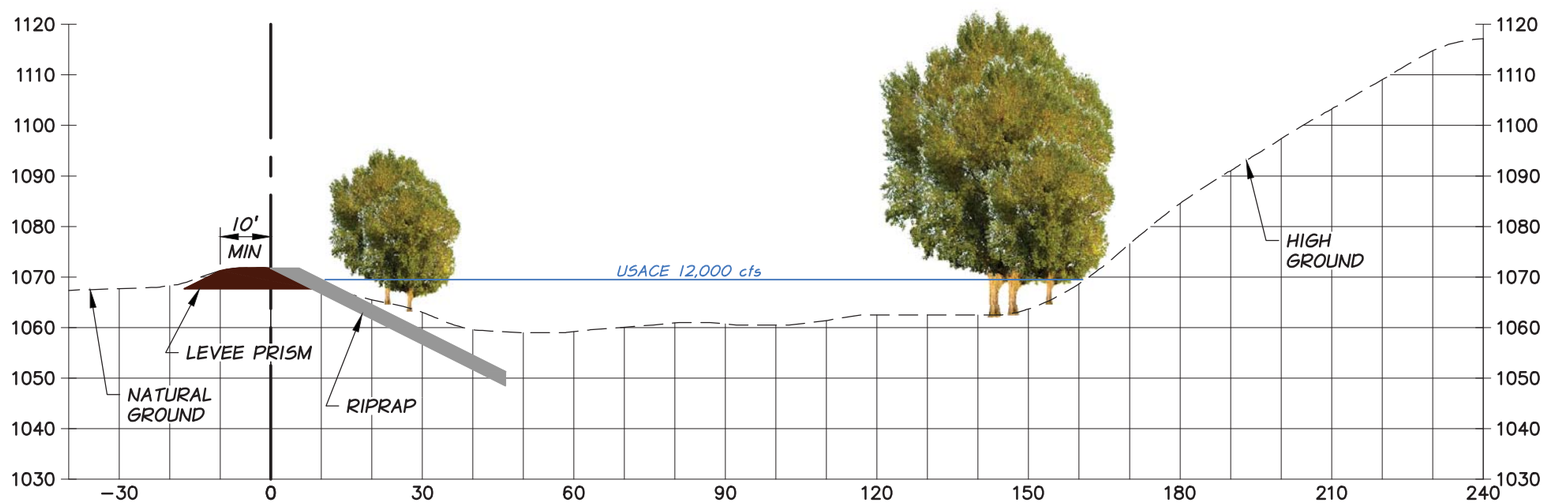

7

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
7

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 8.indd

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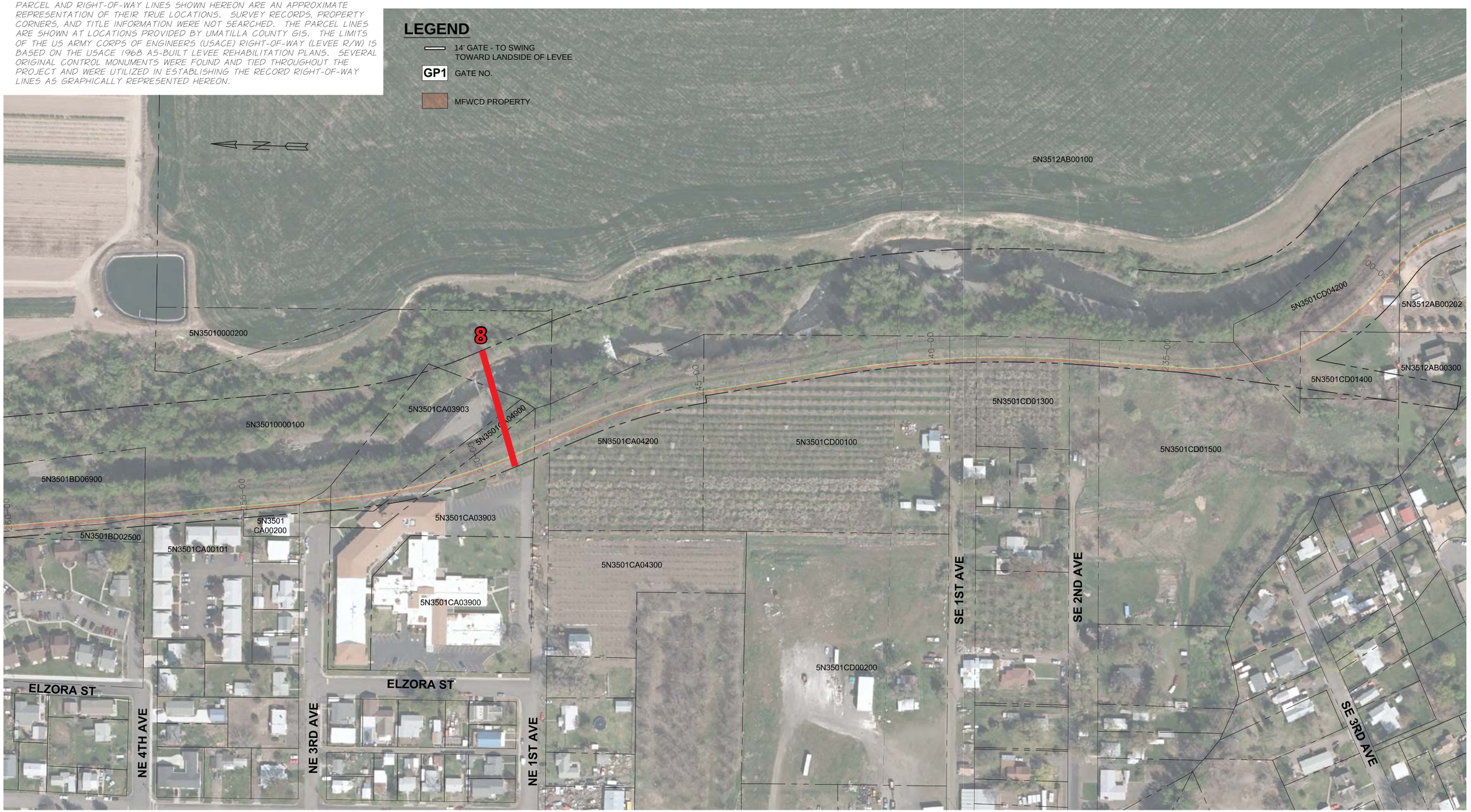
LEGEND

14' GATE - TO SWING TOWARD LANDSIDE OF LEVEE

GP1 GATE NO.

MFWCD PROPERTY



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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

CEMETERY ROAD BRIDGE TO NURSERY BRIDGE

SHEET
2 OF 3

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\CEMETERY RD BRIDGE TO NURSERY BRIDGE 2 OF 3.indd

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8

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
8

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JOB NUMBER W156-18	DATE MAY 2012
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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

CEMETERY ROAD BRIDGE TO NURSERY BRIDGE

SHEET
3 OF 3

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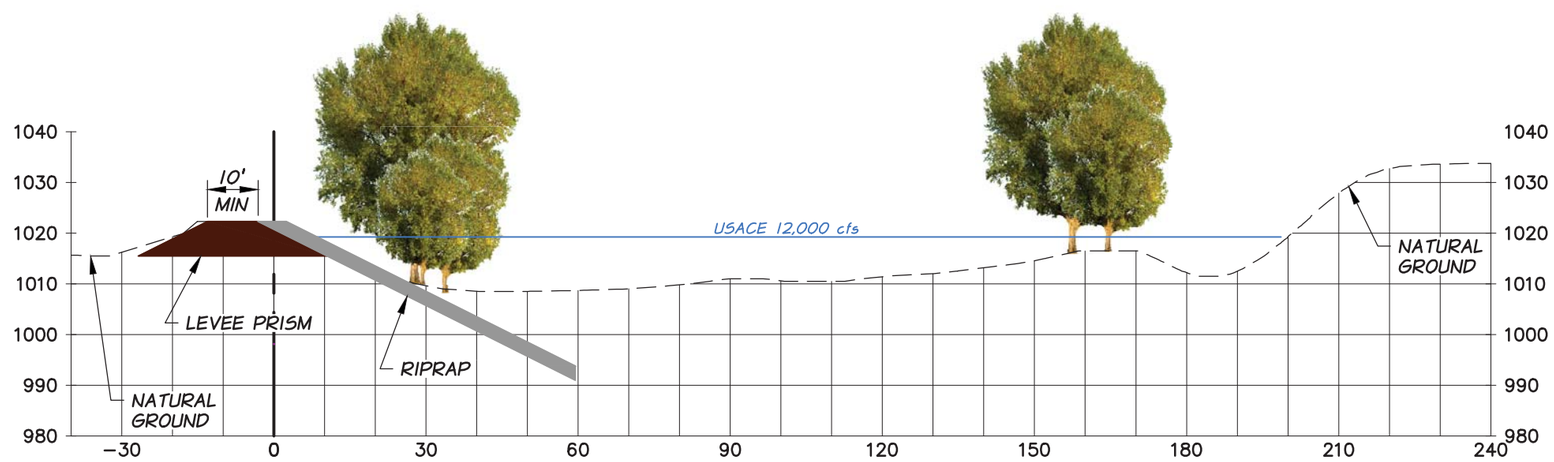

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
9

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 10.indd

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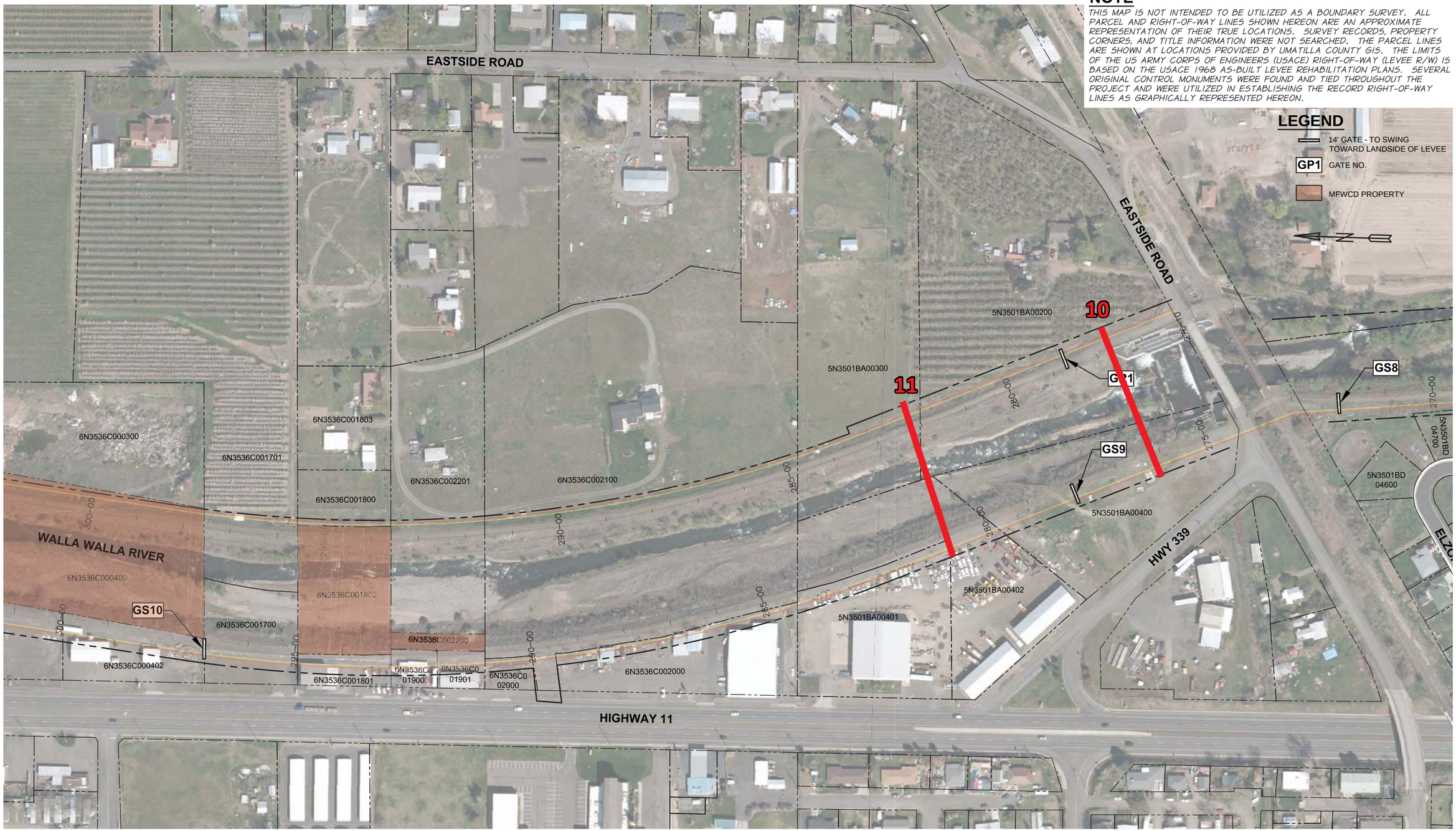

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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

NURSERY BRIDGE
TO McCOY/TUM-A-LUM BRIDGE

SHEET
1 OF 5

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\NURSERY BRIDGE TO MCCOY TUM-A-LUM BRIDGE 1 OF 5.indd

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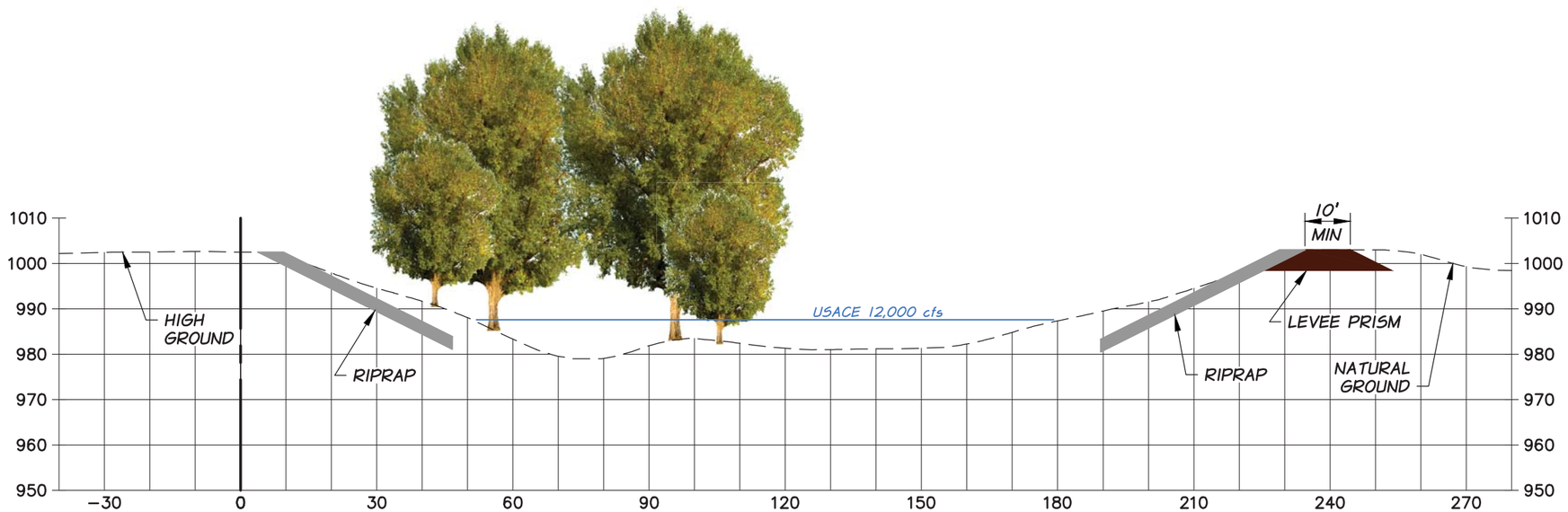

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JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
10

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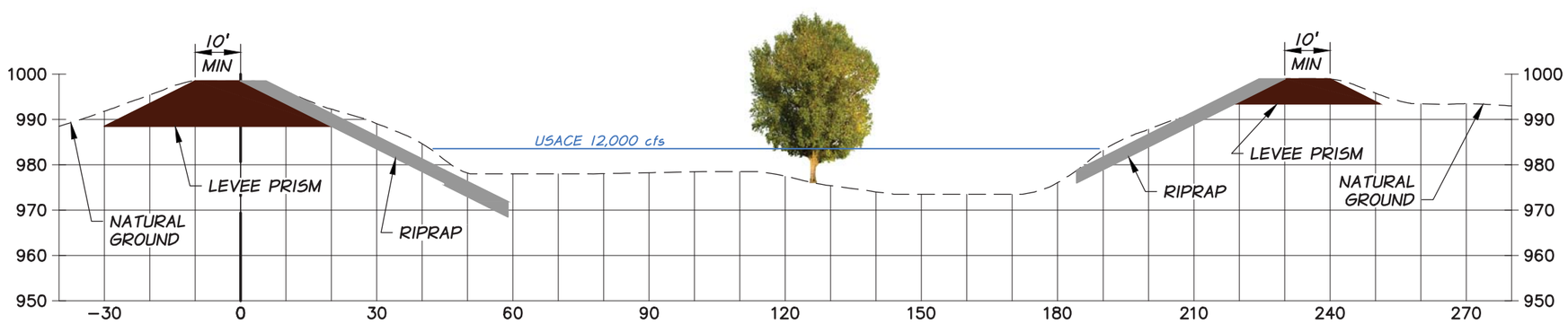

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SCALE IN FEET

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
11

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 12.indd

NOTE

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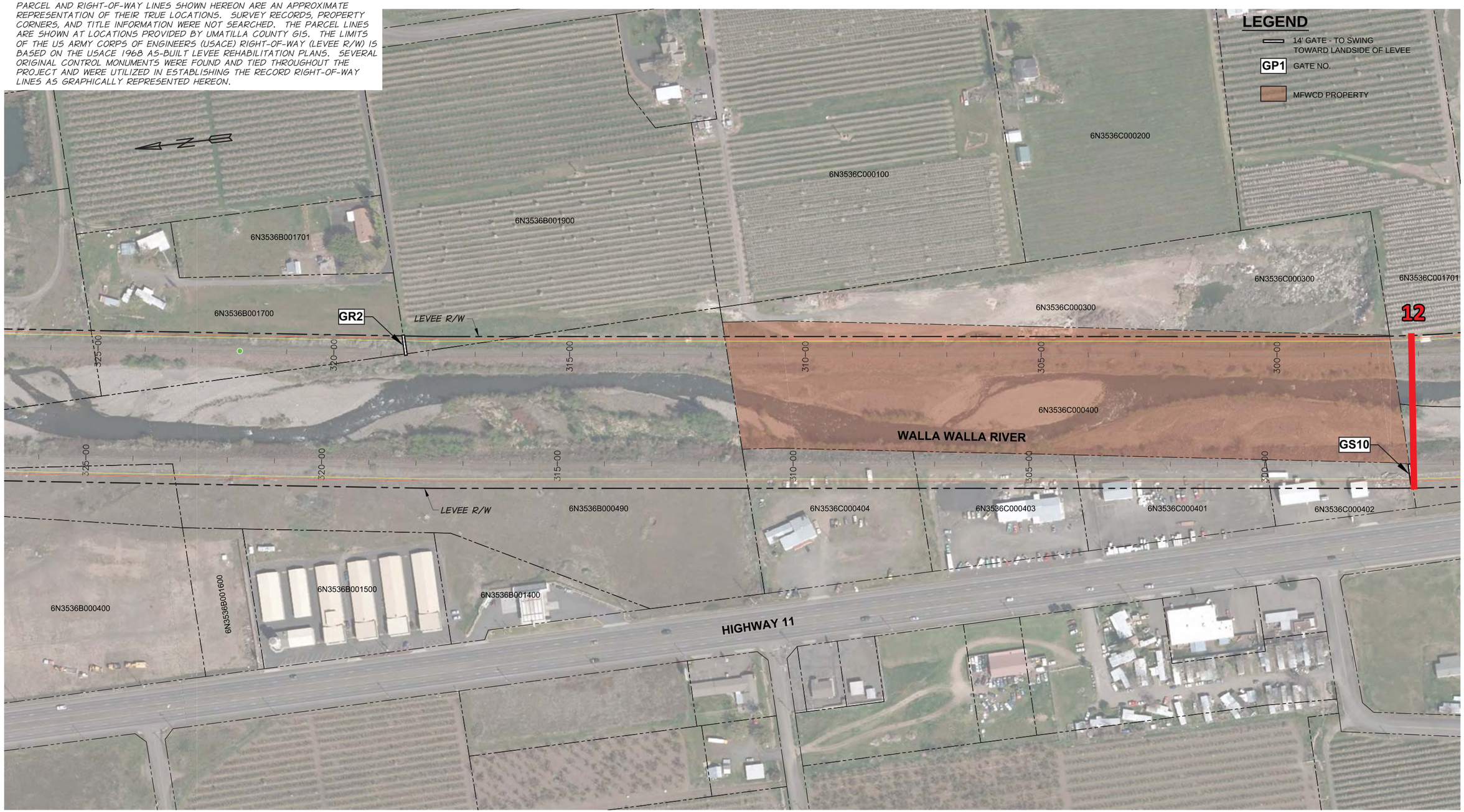

REVISION	BY	DATE	HORZ. SCALE / VERT. SCALE
DESIGNED BY J. WELLS			JOB NUMBER W156-18 / DATE MAY 2012
DRAWN BY B. SAILER			ACAD FILE: MFWCDENC-E_2of5.dwg
REVIEWED BY -			COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.

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SCALE IN FEET

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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

NURSERY BRIDGE TO McCOY/TUM-A-LUM BRIDGE

SHEET
2 OF 5

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\NURSERY BRIDGE TO MCCOY TUM-A-LUM BRIDGE 2 OF 5.indd

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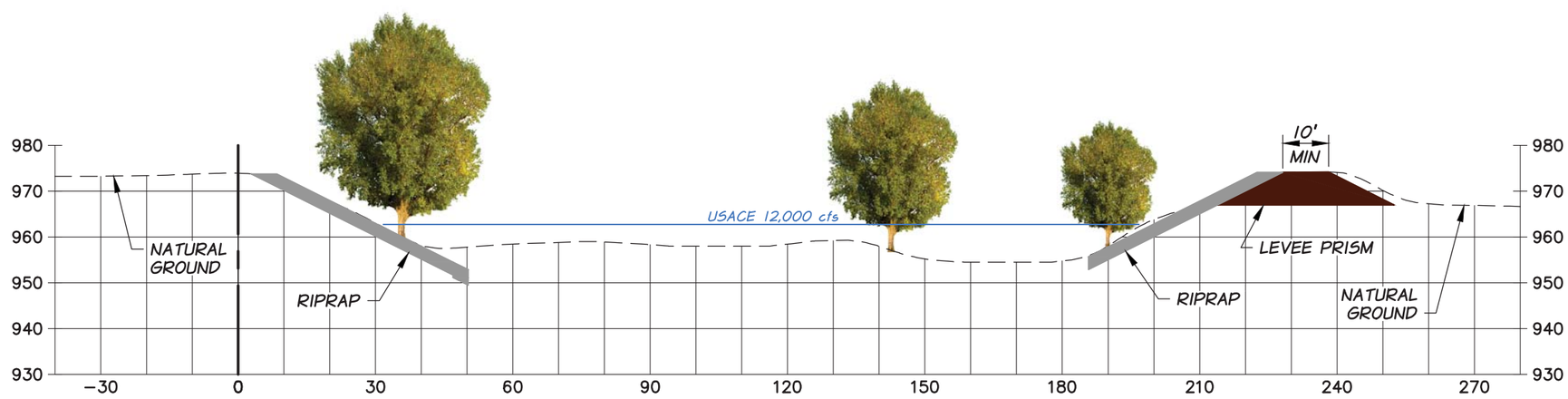

12

300+00.00

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
12

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 13.indd

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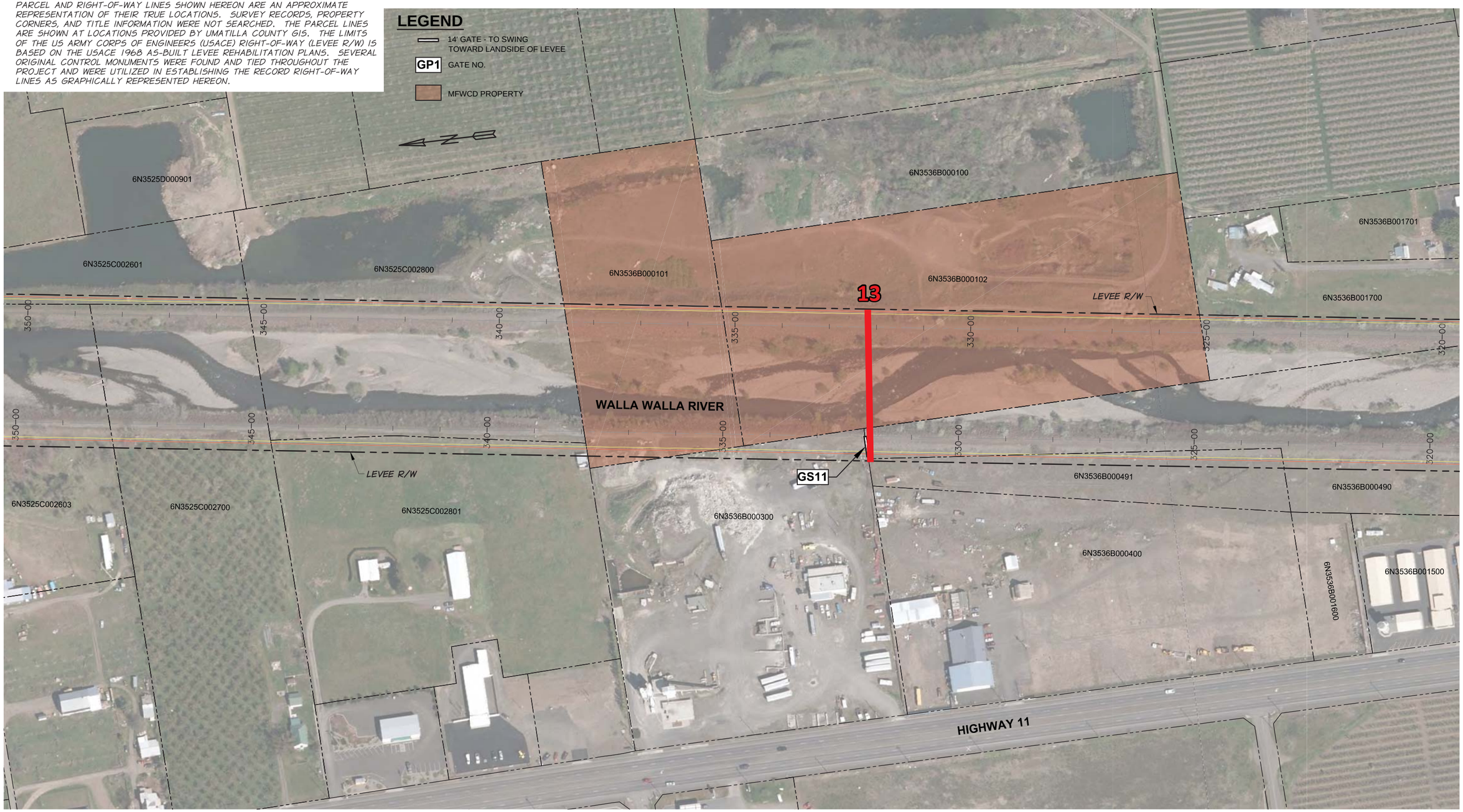

REVISION	BY	DATE

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DESIGNED BY J. WELLS
DRAWN BY B. SAILER
REVIEWED BY –

JOB NUMBER W156–18 | DATE MAY 2012
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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

NURSERY BRIDGE TO McCOY/TUM-A-LUM BRIDGE

SHEET
3 OF 5

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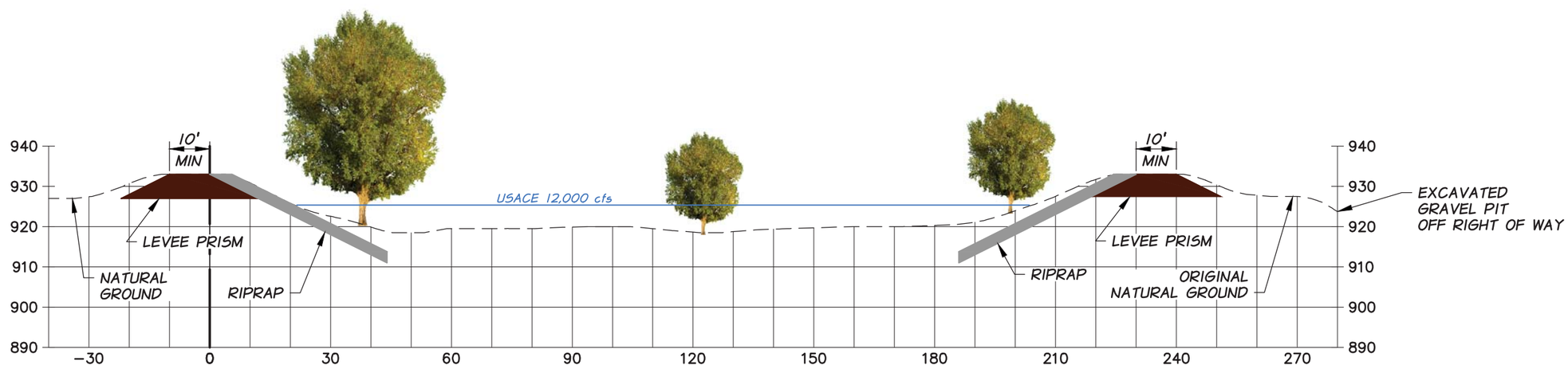

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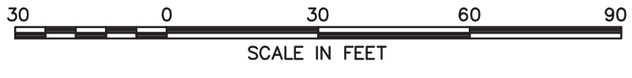

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
13

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIPR&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 14.indd

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DRAWN BY B. SAILER			
REVIEWED BY –			

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JOB NUMBER W156-18 | DATE MAY 2012
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MILTON-FREEWATER WATER CONTROL DISTRICT
LEVEE ENCROACHMENT MAP

NURSERY BRIDGE TO McCOY/TUM-A-LUM BRIDGE

SHEET
4 OF 5

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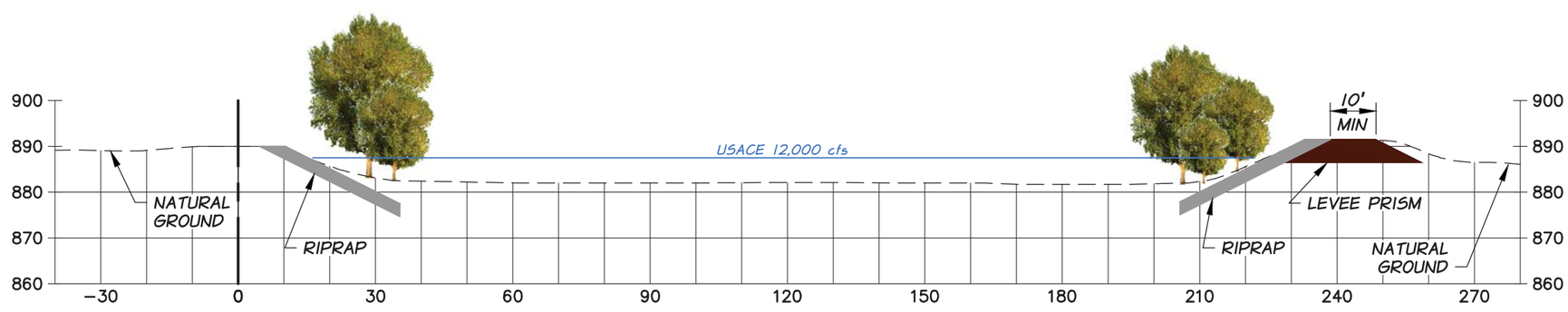

14

364+85.00

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
14

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 15.indd

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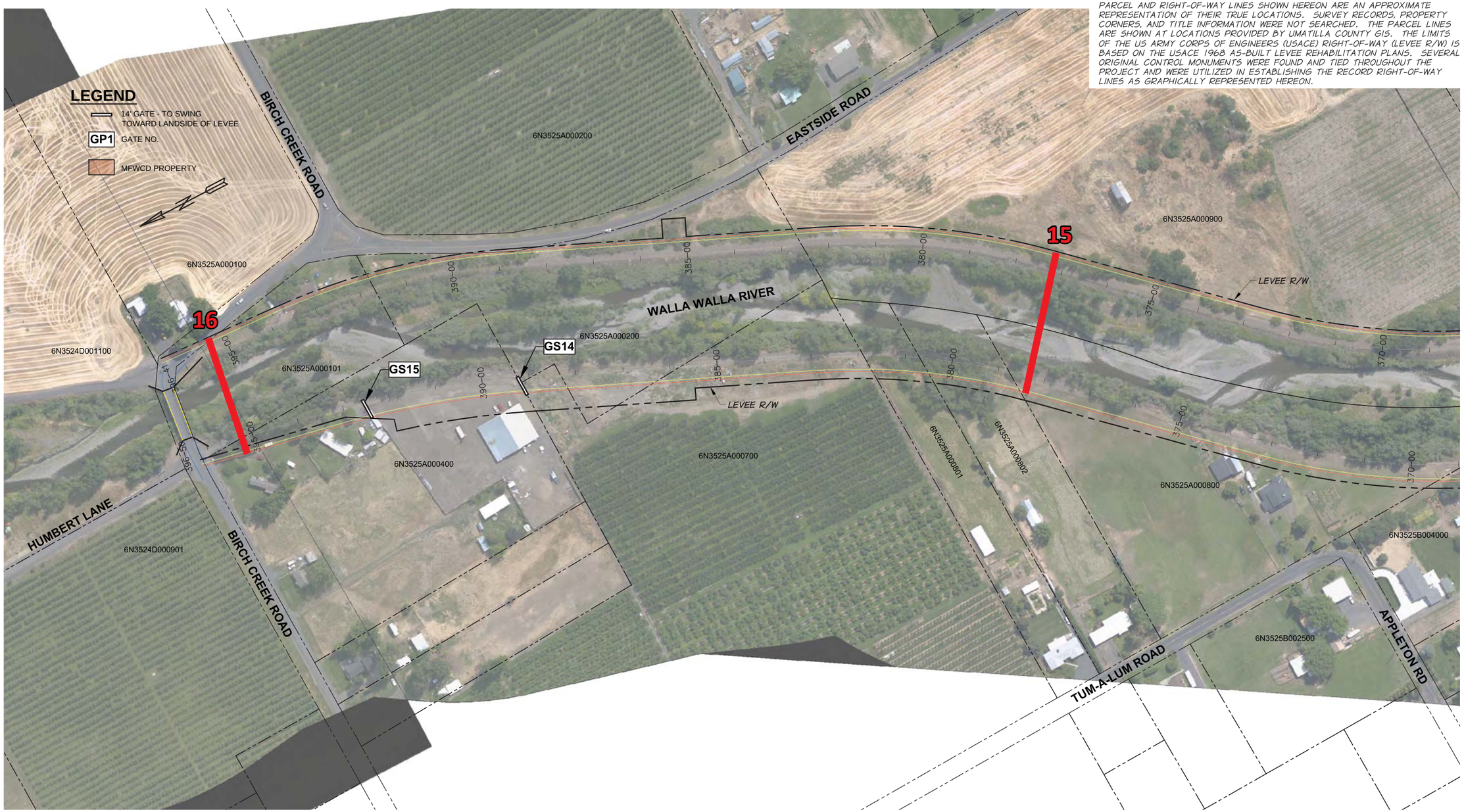

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DESIGNED BY J. WELLS
DRAWN BY B. SAILER
REVIEWED BY –

100 0 100 200 300
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HORZ. SCALE | VERT. SCALE
JOB NUMBER W156-18 | DATE MAY 2012
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MILTON-FREEWATER WATER CONTROL DISTRICT

LEVEE ENCROACHMENT MAP

NURSERY BRIDGE TO McCOY/TUM-A-LUM BRIDGE

SHEET **5 OF 5**

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\DRAWINGS\NURSERY BRIDGE TO MCCOY TUM-A-LUM BRIDGE 5 OF 5.indd

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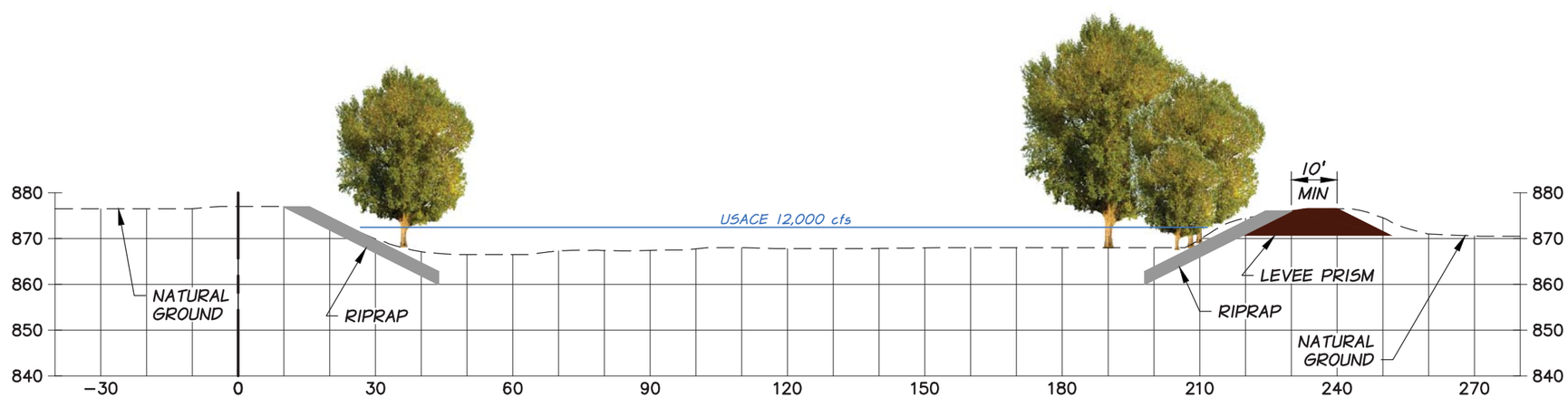

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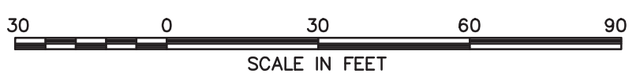

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
15

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 16.indd

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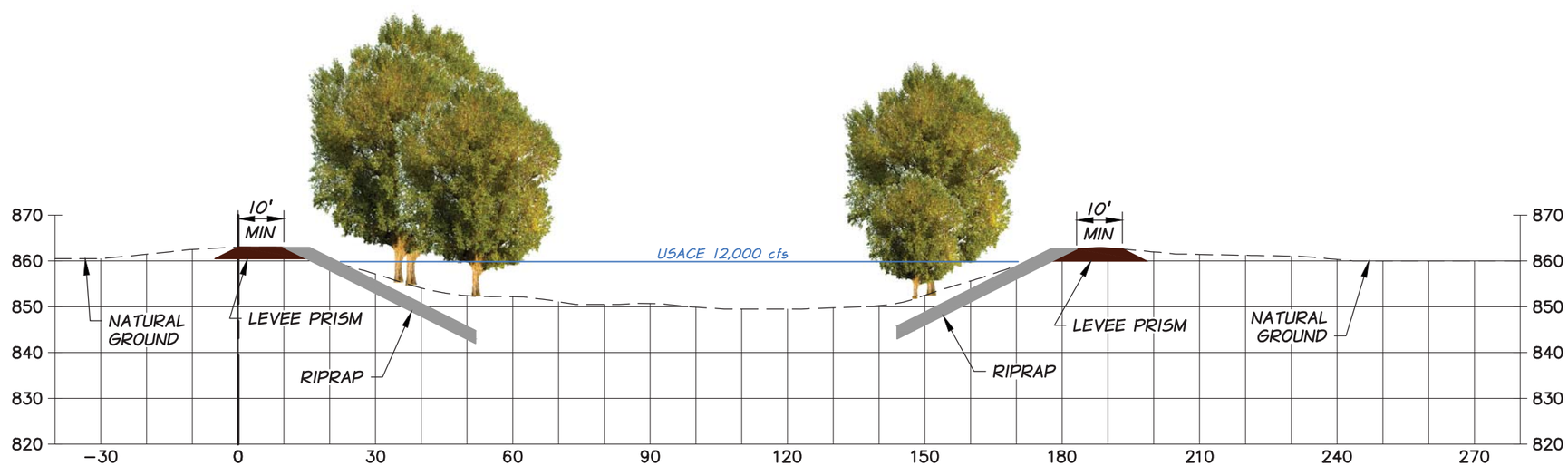

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MILTON-FREEWATER
WATER CONTROL DISTRICT
JANUARY 2013

VEGETATION ON LEVEE CROSS SECTION

FIGURE
16

S:\DOCS\MF WATER CONTROL DISTRICT\W156-18 RIP&FEMA LEVEE ISSUES\SWIF PLAN\CROSS SECTION FIGURES\FIGURE 17.indd

ATTACHMENT 5

Support Annex 13: Flood Incident

Support Annex 13: Flood Incident

This annex was developed to address the occurrence of an imminent failure or failure of the Milton-Freewater levee system. Since failure of this levee may affect citizens located within the City of Milton Freewater and County, this annex provides an action plan for a joint Milton-Freewater Water Control District (MFWCD)/City/County response.

Operational Concepts

A. The levee system is the sole responsibility of the Milton-Freewater Water Control District. This annex was developed to provide a plan for a coordinated response with the MFWCD.
B. The Milton-Freewater Water Control District will coordinate with federal, state and local partners to identify potential hazards and determine their vulnerability.
C. In the event of a flood incident within the City of Milton-Freewater; an evacuation may be initiated by any of the following persons:
    1. MFWCD Chair
    2. Mayor
    3. City Manager
    4. Police Chief
    5. Fire Chief
    6. Health Department
    7. Key officials designated by the City of Milton-Freewater

Responsibilities
The responsibilities listed are not intended to be departmental checklists. Each department will develop internal policies and procedures to perform its assigned duties. At the discretion of the IC not all functions may be performed and not all agencies used.

<u>Primary Agency:</u>

MFWCD

1. Coordinates overall strategic disaster response during a major emergency or disaster according to its emergency action plan.
2. Orders evacuation whenever necessary to protect lives and property.
3. Inspects levee system.
4. Advises City of levee safety and flood fight needs.
5. Coordinates levee repair efforts with Federal, State, and local agencies.
6. Communicates with USACE for PL84-99 repairs and emergency flood fighting efforts.
7. Provides information related to flood status and levee safety.
8. Evaluates river stage and weather information.
9. Declares flood emergency and notifies USACE.
10. Maintains and operates the levee system.
11. Maintains a list of contractors and available resources.
12. Ensures access is available to perform flood fighting and emergency repairs.

Support Agencies:

Umatilla County Emergency Management

1. Provides up to 10,000 sand bags.

City of Milton-Freewater

1. Provides available resources in support of mitigating the incident.

City of Milton-Freewater Departments

Public Works

1. Installs traffic control signs and barricades and directs the operational control of traffic signals and equipment.
2. Assists with the identification of evacuation routes.
3. Assists with damage assessment including roadway and bridges.
4. Provides debris removal in blocked roadways in evacuation routes.

Fire Department

1. Orders evacuations whenever necessary to protect lives and property.
2. Assists with initial on-scene evacuation and assists overall incident response.
3. Assists with the dissemination of evacuation instructions and information to the public

Police Department

1. Orders evacuations whenever necessary to protect lives and property.
2. Assists initial on-scene evacuation and assists overall incident response.
3. Assists with the dissemination of evacuation instructions and information to the public.
4. Provides damage assessment regarding the viability of evacuation routes.
5. Provides traffic and crowd control, and manages access to and protects property in evacuated areas.
6. Coordinates removal of stalled vehicles and equipment from evacuation routes.
7. Assists in identifying the location and welfare of affected citizens.

Public Transportation

1. Assists mass transit requirements to support evacuation efforts.

ATTACHMENT 6

Local Contractors' Available Equipment and Supplies

MILTON-FREEWATER WATER CONTROL DISTRICT
Local Contractors' Available Equipment and Supplies

A. Key Excavating, Inc.
53876 E Ferndale Road
Milton-Freewater, OR 97862
509-520-4811
541-938-3810 – fax
allensky4@msn.com

Equipment
3 Tracked Excavators(30 k lb)
Lowboy
6 Dump Trucks
Roller
3 Dozers (D2,D3,D8)

Premier Excavation, Inc.
721 S 28th Avenue
Pasco, WA 99301
509-546-0144
509-542-1596 – fax
dianaw@premexc.com

Equipment
5 Tracked Excavators (25, 2-50, 60, 100 k lb)
Lowboy
2 Loaders
3 Dump Trucks
2 Off Road Trucks
2 Dozers (D5, D8)
Rollers

Harry Johnson Plumbing & Excavation, Inc.
2800 E Isaacs Avenue
Walla Walla, WA 99362
509-525-7203
509-529-2382 – fax
carol@hjpe.com

Equipment
3 Tracked Excavators (30, 50, 80, k lb)
3 Dump Trucks
Lowboy
Roller
Dozers (D3, D6, D8)

Richardson Excavation LLC
1346 Barleen Drive
Walla Walla, WA 99362
509-520-5010
509-526-6957 - fax
richardsonexcavation@gmail.com

Equipment
3 Tracked Excavators (2-12, 27, k lb)
2 Dump Trucks
Trailer
Roller
Backhoe

Royse Hydroseeding & Excavation
1644 Plaza Way
Walla Walla, WA 99362
509-526-9369
509-529-5852 – fax
john@roysehydroseeding.com

Equipment
4 Tracked Excavators (30, 2-50, 90, k lb)
3 Dump Trucks
2 Lowboy
2 Dozer (D5, D6)
Roller
Backhoe

Rock Product Suppliers

A&B Asphalt, Inc.
53847 Walla Walla River Road
Milton-Freewater, OR 97862
541-938-5205
541-938-6631
mdstalder@hotmail.com

Humbert Asphalt, Inc.
84899 Hwy 11
Milton-Freewater, OR 97862
541-938-3174
541-938-5001 - fax
humbertasphalt@hotmail.com

Konen Rock Products, Inc.
81890 Couse Creek Road
Milton-Freewater, OR 97862
541-938-6856
541-938-6906 – fax
krpinc@gmail.com