

## APPENDIX E

**Table 1 Preliminary Field Work**

NOTE: Information was collected from personal interviews during initial fieldwork - comments were not verified.

<b>Number</b>	<b>Meeting Date</b>	<b>Structure</b>	<b>Description</b>
85	March 29, 2005	Diversion	Above AID diversion, LB blows out at every flood event. Rip rap structure placed upstream supposed to direct flow away from AID, but doesn't work at high flow. Photos
92	March 28, 2005	Diversion	Clogged with debris, so cannot be used to relieve Ahtanum from flood flows.
86	March 29, 2005	Fish bypass	Fish bypass structure at lower end is becoming dry because channel is moving away from it (toward RB). Photos.
87	March 29, 2005	Bridge	Right bank above bridge crossing is eroding due to altered flow upstream. Photos.
84	March 29, 2005	Fence	Bridge alignment pushes channel flow to left bank; during flood water overtops and floods west field; fence catches debris. Bridge built in '96/'97 by Bureau, gives access to property across creek (WIP diversion); before '96, this flood area was not an issue.
90	March 31, 2005	Bridge	Debris and sediment on inside of turn in stream, under bridge. Photos
91	March 31, 2005	Riprap; bridge	Rip rap both upstream and downstream of bridge. Bridge undersized. Photos
48	March 31, 2005	Riprap; bridge	Bridge is undersized and rip rap is in place for stabilization of banks. Photos
49	March 31, 2005	Levee	Debris placed along right bank as a berm. Photos
50	March 31, 2005	Bridge	Low clearance. Side ditch coming in upstream of bridge. Debris downstream. No homes nearby to worry about. Photos

<b>Number</b>	<b>Meeting Date</b>	<b>Structure</b>	<b>Description</b>
51	March 31, 2005	Riprap; bridge	Low clearance. Rip rap upstream. Photos
123	March 29, 2005	Riprap; bridge	Upstream of bridge on WH, lots of debris; rip rap indicates bank needed stabilization. Further upstream of bridge, levee on either side causing channelization; eroded RB levee; downstream stream takes right turn, where rip rap is stabilizing LB. Photos
122	March 29, 2005	Pump station; bridge	Bridge at Wide Hollow has pump station and water conveyance system; photos
199	March 29, 2005	Levee	Levee at soccer park. Incised and straightened channel due to dike on LB. Photos
200	March 29, 2005	Bridge	Debris dam upstream of bridge; low banks could easily overtop at high flow; downstream of bridge, there is backwater area. Next to channel is channelized irrigation ditch with no riparian vegetation. Photos
211	March 31, 2005	Bridge	Bridge clearance looks good, but Goodman Rd is known for water on roadway at bridge during high flows. Right bank erosion downstream of bridge. Photos
208	March 31, 2005	Floodgate	Upstream of railroad crossing, there is a flood gate that is opened during high flows to flood field to prevent flooding of neighborhood in Union Gap. Location not verified. Photos
204	March 30, 2005	Floodgate	Used to be held open by blocks, which cause flooding from Yakima R in '96. They have since closed gate and it's no longer a problem. Property owner downstream is keeping water at high level for flood irrigation purposes.
202	March 30, 2005	Culvert	Drain pipe from Ahtanum Rd. Was supposed to be connected to pipe going under the highway, but it was never connected.
201	March 30, 2005	Gravel pits	Yakima R during high flows jumps banks into gravel pit ponds. Area unstable. Worried about Yakima R water going into Spring Creek, which does not have the capacity for it; Flood gates were closed Jan 28, 2003. Several drains go into Spring Creek. Photos

Number	Meeting Date	Structure	Description
207	March 30, 2005	Bridge	Constriction in channel; not much clearance under bridge. Company gets flooded regularly due to debris caught behind bridge and their parking lot is below channel level. Photos
215	March 30, 2005	Dam	Work will be done to expand dam. Worried about river going down canal during flood event, as almost happened in '96. Channels above dam clog with debris halfway up the island. Photos.

**APPENDIX E**

**Table 2 Initial Interviews**

**NOTE: Any comments pertaining to proposed causes or solutions to problems were provided by the interviewees and were not verified.**

Number	Meeting Date	Contact	Structure	Description
9	Tuesday, Feb 15	DNR	Culvert	Too small of a culvert; put one in; replace with larger pipe.
11	Tuesday, Feb 15	DNR	Culvert	Big culvert; small stick backed up debris. Has been armored but needs to be replaced. County road.
12	Tuesday, Feb 15	DNR	Beaver dam	Beaver pond by Herke pit; ice jam created debris flow; almost knocked house off foundation.
13	Tuesday, Feb 15	DNR	Diversion	Evacuation near John Cox ditch, Nov 2003. County road almost blown out. County road parallels creek for 0.25-0.5 mi and restricts creek. Minimal damage from Foundation Creek.
14	Tuesday, Feb 15	DNR	Bridge	3 bridges. Volume coming down took out approach. 2 bridges need barbs. Series of small channels.
15	November, 2004	Joel Freudenthal	Culvert	This creek contributes fresh bedload to SF, blows out culvert and road. Probably could replace culvert.
17	November, 2004	Joel Freudenthal	Bridge	North Fork Bridge probably too small, stream alignment also very bad (John Cox diversion here as well). During floods stream channel aggrades. Massive LWD piles up against abutment, decreasing conveyance through the bridge further causing more aggradation.

Number	Meeting Date	Contact	Structure	Description
18	November, 2004	Joel Freudenthal	Bridge	Series of new private bridges that constrict the channel and may fail during any flood.
42	November, 2004	Joel Freudenthal	Culvert	Bad sediment transport at culvert.
44	November, 2004	Joel Freudenthal	Culvert	Bad culvert, bank erosion downstream, flooding.
52	April 28 2005		Fence; Fish bypass	Wade Kamper property; abandoned diversion took off 100 yds east of bridge; 2 pieces of steel fencing put in to assist dam and never removed; fish bypass put in and part of diversion removed. Beavers in area. Note: location unknown.
70		Keelan McPhee	Beaver dam	Homes built between channels are threatened by beaver dams and ice jams.
71		Mrs Thomas Bates	Culvert	Redesigned drainage pipe.
80	November, 2004	Joel Freudenthal	Diversions	Creek illegally rerouted to the south in this area, comes unglued during floods and threatens new expensive homes along creek.
118	November, 2004	Joel Freudenthal	Fence	Out of bank flooding due to constriction, fences capturing debris.
119	November, 2004	Joel Freudenthal	Levee	Chronic flooding area - the dike that protects the apple warehouse across the creek forces flood waters here - the bridge downstream is probably undersized as well.
130	April 28 2005		Beaver dam	Beaver dams on Wide Hollow Creek.
177	November, 2004	Joel Freudenthal	Bridge	Bridge undersized.
179	November, 2004	Joel Freudenthal	Floodgate	Spring Creek- management of Gate Floodgate by County, management of stream channel under Union Gap Critical Areas Code.
180	November, 2004	Joel Freudenthal	Levee	Numerous problems with conveyance and levee failure in City of Union Gap. High hazard at very low flood elevations, especially near Main Street.
184	March 4, 2005	Dennis Henne, City of Union Gap	Bridge	Goodman Rd. Backs up at bridge and runs/bridge undersized.
185	March 4, 2005	Dennis Henne, City of Union Gap	Bridge	S. 3rd Ave. 70's - washed out bridge. '96 - Not sure if flooded. '99 - widened existing bridge and installed 2 or 3 box overflow structures.
186	March 4, 2005	Dennis Henne, City of Union Gap	Bridge	16 <sup>th</sup> - 1 1/2 ft of freeboard on bridge - causing a lot of problems.

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189	March 4, 2005	Dennis Henne, City of Union Gap	Bridge	Pioneer Ln. debris gets caught up on bridge. This bridge is scheduled for removal in 2007 with Valley Mall Blvd. project.
196	March 4, 2005	Dennis Henne, City of Union Gap	Sewage lift station	Sewage lift station – critical - very close call in '96.
197	March 4, 2005	Dennis Henne, City of Union Gap	Sewage lift station	Smaller sewage lift station - often flooded.
198	March 4, 2005	Dennis Henne, City of Union Gap	Fish bypass	Old Water Mill - fish screen and ladder. More of a bottleneck.

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