

# APPENDIX D

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## Full Stormwater Problems and Solutions Table



**Table D-1. Inventory of Drainage Problems on City Creeks.**

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
1.00	Citywide	Sequim Area Stormwater – Watershed Plan	Long history of flooding problems along the Bell Creek Corridor and in western Sequim. Stormwater input via active and abandoned irrigation conveyances adds to flooding across city, and future development may increase flooding in already flooded/problem areas.	Plan proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
1.01	West end Schmuck Road culvert (Clallam County)	Bell Creek flooding at RM 0.2	Creek backs up in extreme events, flows onto private property.	Potential future capital project(s) to mitigate flow upstream and improve capacity at Schmuck Road. (Outside city/ UGA)	Less urgent
1.02	West end Rhodefer Road culvert	Bell Creek Overflow Channel Upgrade at RM 1.4	Channel very overgrown and culvert backs up, causing flooding of Carrie Blake Park as well as north to the Reuse Park.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan.	MP Table 5
1.03	Lower pond at Carrie Blake Park	Bell Creek flooding at RM 1.45	Creek flows out of pond to north onto City property (Re-use Park).	Maintain pond outlet. Potential future capital project to improve capacity; also related to 1.02.	Less urgent
1.04	Carrie Blake Park entrance	Bell Creek Culvert Upgrade at RM 1.5	Two culverts along Bell Creek used to convey creek flows under driveway to Carrie Blake Park (off of North Blake Avenue) do not have adequate hydraulic capacity to handle high flows. Flooding has been observed in the park entry and Blake Avenue.	Proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
1.05	East end N Blake Avenue culvert	Bell Creek flooding at RM 1.6	Creek flows out of channel onto private and City property to the east.	Re-evaluate problem and perform culvert and channel maintenance if needed. Potential future capital project.	Less urgent
1.06	West end N Blake Avenue culvert	Bell Creek Culvert Upgrade at RM 1.6	Culvert backs up and causes flooding of Gebhardt-Zwicker Park and spills onto Blake Avenue and private property.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan. Evaluate culvert as part of 1.00 or 1.09.	MP Table 5

Table D-1 (continued). Inventory of Drainage Problems on City Creeks.

Problem No.	Location	Problem/ Project Name	Problem	Recommended Approach	Priority
1.07	South side E Washington culvert	Bell Creek Culvert Upgrade at RM 1.8	Existing culvert downstream of Culvert 1.08 along Bell Creek does not have adequate capacity and the roadway at intersection of S Brown and E Washington Streets floods during high flow events. Culvert starts out heading north, angles northeast under E Washington and N Brown Intersection, then joins and 11-foot-wide by 6-foot-high culvert under Les Schwab driveway.	Proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F. Evaluate culvert as part of 1.00 or 1.09.	CIP Table 6
1.08	S Brown at south end private driveway (to Bell Creek Café and Evergreen Collision)	Bell Creek Culvert Upgrade at RM 1.85	Bell Creek and culvert under driveway along S Brown Road flood during high flows. Flooding extends into roadway and driveway of business, but does not reach business parking lot to the north. Floodplain ("sponge") to the south receives some of the excess flows and also floods. Undeveloped sponge area is lower in elevation than the adjacent parking lot to the north of Bell Creek along this corridor, so excess flows will flood this area before flooding parking lot.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan. Evaluate culvert as part of 1.00 or 1.09. Also see discharge from parking lot to Creek, #4.44.	MP Table 5
1.09	RM 2.2 to 1.8 (primarily Burrowes property)	Middle Reach Bell Creek Floodplain Planning	Bell Creek, Highland irrigation ditch, and stormwater culverts along Bell Creek corridor receive stormwater runoff from upland areas during storm events, causing facilities to back up and flood undeveloped property along the Creek during high flows. Would address problems 2.17, 2.29.	Proposed for CIP as an alternative to 1.00. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
1.10	South end E Hammond ROW culvert (across from apartments)	Bell Creek Culvert Upgrade at RM 2.2	Bell Creek Culvert backs up onto private property on south side of E Hammond Road due to overgrown vegetation and possibly lack of capacity.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan. Evaluate culvert as part of 1.00 or 1.09.	MP Table 5

Table D-1 (continued). Inventory of Drainage Problems on City Creeks.

Problem No.	Location	Problem/ Project Name	Problem	Recommended Approach	Priority
1.11	S Sequim Avenue culvert (WS DOT)	Bell Creek culvert gravel accumulation at RM 2.5	Gravel accumulation and mounding in arch culvert.	Re-evaluate problem and perform culvert maintenance if needed. Evaluate culvert as part of 1.00 or 1.09. (Property of WS DOT)	Less urgent
1.12	City shop property, west of Sequim Avenue	Bell Creek culvert back up at RM 2.6	Culvert may back up (based on appearance of floodplain upstream).	Evaluate culvert to improve capacity as part of 1.00 or 1.09.	Less urgent
1.13	Highway 101 (WS DOT)	Bell Creek culvert gravel accumulation at RM 2.7	Gravel accumulation may be a problem in box culvert. Estimated 2- to 3-foot deep gravel/sediment.	Re-evaluate problem and perform culvert maintenance if needed. Evaluate culvert as part of 1.00 or 1.09.	Less urgent
1.14	Highland irrigation ditch spillway (HID)	Bell Creek spillway discharge from irrigation ditch at RM 3.5	Spillway (weir) up-ditch from siphon dumps stormwater and Dungeness River water into Bell Creek periodically throughout year. Erosion from outfall could affect water quality; irregular use creates irregular hydrology, fills storage capacity in floodplain below.	Irrigation system upgrade needed to resolve erosion problem. Evaluate situation as part of 1.00 (Sequim Area Stormwater – Watershed Plan).	Less urgent
1.15	Highland irrigation ditch siphon (HID)	Bell Creek valve discharge from siphon at RM 3.6	When valve opened up, water discharges into creek bank, causing erosion. Erosion of stream bank may affect habitat and water quality.	Irrigation system upgrade needed to resolve erosion problem, such as an energy dissipater to control erosion. (Highland Irrigation District)	Less urgent
1.16	West side of N Brown Road culvert (Clallam County)	Gierin Creek culvert back up at RM 2.6	Potential culvert backing up due to runoff partially originating in City.	Private system upgrade. Evaluate problem as part of 1.00 (Sequim Area Stormwater – Watershed Plan). (outside city/UGA)	Less urgent
1.17	Highland ditch tail water discharge, east from Happy Valley Road via ditch easement road (Clallam County)	Johnson Creek habitat concerns at RM 1.6	Erosion, habitat damage and water quality impacts may occur. Outside city and UGA, but may influence water quality and habitat in city.	Irrigation system upgrade may be needed. Evaluate problem as part of 1.00 (Sequim Area Stormwater – Watershed Plan). (Highland Irrigation District)	Less urgent

Table D-1 (continued). Inventory of Drainage Problems on City Creeks.

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
1.18	N Brown Road at Bell Creek/Les Schwab	N Brown Road Drainage Improvements at Les Schwab	Stormwater pipe along N Brown Road discharges untreated stormwater runoff from City streets into Bell Creek downstream of culvert under Les Schwab driveway.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan.	MP Table 5
1.19	Happy Valley Road at Bell Creek (UGA line)	Happy Valley Road at RM 3.8 (County road)	Potential for clogged culvert, would back up and flood road.	Watch and maintain culvert especially during storms.	Less urgent

**Table D-2. Inventory of Drainage Problems on City-Owned Property.**

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
2.01	S 2nd at Washington	S 2nd at Washington drainage improvements	Runoff from the west on Washington floods this intersection and erodes the ROW landscaping, which clogs other storm drains.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan.	MP Table 5
2.02	S 3rd at Bell— southwest corner	S 3rd at Bell drainage improvements	Persistent ponding reported by resident but not documented.	Evaluate need for future capital project to add infiltration capacity.	Less urgent
2.03	S 3rd at Hemlock— northwest corner	S 3rd at Hemlock drainage improvements	Permeable pavement works where it exists. Other areas pond even in small events.	Evaluate need for future capital project to add infiltration capacity.	Less urgent
2.04	S 3rd at drive to Hideaway Homes MHP	S 3rd Avenue Drainage Improvements	Culvert routes stormwater runoff from open ditch under driveway, and discharges to gravel bank along right of way. Erosion of gravel bank from the culvert flows are causing sediment deposition and flooding of private property. Flooding occurs on east side of bus barn property, continues north as a piped system, and crosses under S 3rd Avenue into DOT detention pond.	Proposed for CIP. Evaluated as part of Stormwater Problem Field Investigations. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
2.05	N 5th at Cedar, southeast corner	N 5th Avenue Structure Upgrade	Drywell at southeast corner of W Cedar and N 5th Avenue intersection floods at inlet. Flooding extends along cross walk and up ramp, imposing risk to pedestrians (especially when icy). Maintenance was recently performed but the structure still does not provide adequate drainage.	Proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
2.06	N 5th at Spruce, southeast corner	N 5th at Spruce drainage improvements	Drywell at southeast corner floods. Maintenance was recently performed but the structures still do not provide adequate drainage.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent

Table D-2 (continued). Inventory of Problems on City-Owned Property.

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
2.07	N 5th at Alder, southeast corner	N 5th at Alder drainage improvements	Concrete chunk at end of inlet pipe may cause clogging. Drywell at southeast corner floods. Maintenance was recently performed but the structures still do not provide adequate drainage.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent
2.08	N 5th south of Hendrickson, west side across from SARC driveway	N 5th across from SARC drainage improvements	Maintenance was recently performed but the structures still do not provide adequate drainage.	Potential future capital project to add infiltration capacity.	Less urgent
2.09	S 5th at W Salal Place (south of 101)	S 5th at Salal Place drainage improvements	March 2014 photos showing severe ponding.	Potential future capital project to add infiltration capacity.	Less urgent
2.10	S 5th at Sea Breeze apts., near entrance to Avamere, S 5th loop	S 5th at Sea Breeze drainage improvements	Ditch discharges north into small swale. May contain irrigation tail water (see A2.11).	Perform maintenance as needed (coordinated with Highland irrigation district, if applicable).	Less urgent
2.11	S 5th near west entrance to Maple Ridge	S 5th near Maple Ridge drainage improvements	Check for irrigation ditch tail water—may flow year round.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent
2.12	7th Avenue at W Washington, southwest corner especially (in front of McDonald's)	7th and Washington structure upgrade	Flooding at southwest inlet at intersection of S 7th Avenue and W Washington Street structure is full of sediment. Maintenance was recently performed but the structure still does not drain fast enough.	Proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
2.13	N 7th at west shoulder and parking lot for flooring business at 147 N 7th	N 7th at flooring business structure upgrade	Check CBs and pipe connections (street drain connected to parking lot drywell); whole area floods. (Also listed in misconnected storm drains list, 3.02.)	Refer to Problem 3.02.	Less urgent

Table D-2 (continued). Inventory of Problems on City-Owned Property.

Problem No.	Location	Problem/ Project Name	Problem	Recommended Approach	Priority
2.14	N Blake at Fir	Blake and Fir Drainage Improvements	Flooding on southwest corner of intersection. Four existing catch basins on corners are located at higher elevations than the surrounding grade and infiltration capacity may be inadequate. Catch basin piped to a drywell structure under the sidewalk. Maintenance and rehab/repair was recently performed but ponding persists.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan. Also see 2.70, entrance to Reuse Park.	MP Table 5
2.15	S Brown at 300 feet south of Washington (HID)	S Brown irrigation culvert backs up	Irrigation culvert overflows. Highland Irrigation District.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent
2.16	S Brown at Washington, southwest corner	S Brown Bell Creek culverts	Bell Creek backs up behind culverts and upstream several hundred feet. (Also listed under Creek issues.)	Refer to Problem 1.07 and 1.08.	Less urgent
2.17 (2.29 added)	S Brown and Hammond corner, and along E Hammond	S Brown and E Hammond Drainage Improvements	Flooding at private property located on/ near corner of E Hammond Street and S Brown Avenue.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan.	MP Table 5
2.18	E Brownfield (entire length)	E Brownfield drainage improvements	Occasional flooding at various CBs, ditches, irrigation pipes, culverts.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent
2.19	Carrie Blake Park parking lot, south side	Carrie Blake Park flooded parking lots	Extensive ponding with heavy rain, extends into baseball fields.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent
2.20	Carrie Blake Park Skate Park, near parking area	Skate Park drainage improvements	Needs better drainage summer and winter.	Grade and lip at entrance needs adjusting; infiltration facility needed for runoff (and/or structure to create detention storage). Potential future capital project.	Less urgent

**Table D-2 (continued). Inventory of Problems on City-Owned Property.**

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
2.21	Carrie Blake Park Playground, north side near swings	Playground water faucet leak	Faucet/hydrant leaks, causes ponding (not a stormwater problem, but contributes to flooding).	Coordinate with Water Department for repair or replacement of hydrant by City maintenance staff or small works contract.	Less urgent
2.22	Carrie Blake Park (and Re-use Park) North side lower pond	Lower pond overflow	Floods to north when Bell is high and reaches Re-use park parking lot and drainage ditch	Refer to Problem 1.03.	(Refer to 1.03)
2.23	Centennial Place at Sequim and Washington	Centennial Place Infiltration and Inflow Investigation	Stormwater runoff from parking lot flows to sanitary sewer.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan.	CIP Table 6
2.24	341 Dunlap	Dunlap ponding near Fir	Ponding on residential street, affects parking.	Re-evaluate problem (no facility to maintain). Potential future capital project.	Less urgent
2.25	Etta Street (between Sequim Avenue and Sunnyside)	Etta Street Infiltration and Inflow Investigation	Surface runoff from alley drains to two existing catch basins and it is unclear where the catch basins drain (infiltration trench, drywell, or sanitary sewer). It appears that most of the runoff flows into a catch basin located out of the City right-of-way. Downspout connection appears to tie into sanitary sewer (actual connections to be confirmed).	Proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
2.26	Falcon Road, south end and downstream areas (roads and private property)	River Road Storage Project	Flooding of private property within the City and UGA caused by runoff from west Happy Valley (outside of the UGA in the county) entering Eureka ditch near Mockingbird Lane. Would address problems 4.01, 4.14, and 4.36.	Proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
2.27	W Fir at Fifth Avenue, southeast corner	W Fir and 5th Avenue, SE	Storm drain overflows to street when drywell is full.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent

Table D-2 (continued). Inventory of Problems on City-Owned Property.

Problem No.	Location	Problem/ Project Name	Problem	Recommended Approach	Priority
2.28	W Fir between N 5th and Sequim Avenue	W Fir between N 5th and Sequim Avenue	Major surface damage on W Fir from water ponding, runoff due to lack of adequate stormwater facilities. Reconstruction including stormwater facilities expected in 2016-18.	Check pervious pavement installations. Street is scheduled for reconstruction. Stormwater treatment and infiltration will be designed into street project; funding sources still being identified. Also addresses 2.64.	MP Table 5
2.29/ 2.17	E Hammond Street between S Brown and Still Road	E Hammond Street	Ditch overflows, floods street; runoff is from south of 101 (ditch obstructions would cause major flooding). Ditch flows east to a swale at Still Road, then to the irrigation ditch along West Sequim Bay Road.	Capacity issue for some driveway culverts; regular maintenance needed. Would be resolved with 1.00 or 1.09. Also see 2.17.	Low-Mod. urgency
2.30	W Hammond Street at South Third Place	W Hammond, near S Third Place	Excessive ponding reported by resident at 341 W Hammond.	Re-evaluate problem (no facility at present). Potential future capital project.	Less urgent
2.31	(moved; now 1.19)				
2.32	N Honeycomb Circle at Deseret intersection, southwest corner	Honeycomb at Deseret	Large vault is not perforated so drains very slowly.	Re-evaluate problem and perform maintenance as needed. Potential future capital project.	Less urgent
2.33	McCurdy Road at S Fifth	McCurdy and S 5th, south side	Runoff flows over road, heading east	Re-evaluate problem and perform maintenance as needed. Potential future capital project.	Less urgent
2.34	Miller Road re: Highland Hills	Highland Hills Runoff Abatement	Detention ponds discharge large volumes of runoff downslope, into City roadside ditches along Miller Road and Clara Crest.	Re-evaluate problem and continue to work with HOA and local landowners to perform retrofits and/or ditch maintenance/repair as needed. Retrofit detention pond(s) as needed. Evaluate runoff problem as part of 1.00 or 1.09. Refer to 4.25.	CIP Table 6

Table D-2 (continued). Inventory of Problems on City-Owned Property.

Problem No.	Location	Problem/ Project Name	Problem	Recommended Approach	Priority
2.35 (included in 2.68)	Miller Road at Emerald Highlands	Emerald Highlands pond and drainage improvements	Detention ponds. Overflows to swale at 101 off-ramp.	Re-evaluate problem and perform maintenance if needed. See 2.68 for complete update.	<i>Resolved</i>
2.36	Luis property (744 Miller Road)	Miller Road—Luis	Check roadside ditch and bank sloughing down. City considering piping ditch.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent
2.37	Norman, along length, various addresses	Norman Street	Need to check for excessive ponding. Ponding in ditch in spots.	Re-evaluate problem and perform maintenance if needed; coordinate with private irrigation system (Carlock-Herman) in case it's leaking.	Less urgent
2.38	685 Oak Wood Drive	E Hendrickson/Oak Wood Drive	Ponding reported in 2014.	Re-evaluate problem and perform maintenance if needed.	Less urgent
2.39	Reservoir Road, west of Third	Reservoir Road and 3rd Avenue	Check for flooded/overflowing ditch.	Re-evaluate problem and perform maintenance if needed, coordinated with irrigation district if appropriate.	Less urgent
2.40	Reservoir Road at Highland ditch culvert (around 400 Reservoir Road)	400 Reservoir Road	Check for flooded/overflowing ditch.	Re-evaluate problem and perform maintenance if needed, coordinated with irrigation district if appropriate.	Less urgent
2.41	N Rhodefer at West Sequim Bay Road	N Rhodefer north of West Sequim Bay Road	Storm flow backs up behind culvert. Small culvert; large volumes of water absorbed in wetlands to east.	Re-evaluate problem and perform maintenance if needed. Potential future capital project.	Less urgent
2.42	S Rhodefer at E Washington	S Rhodefer Elk Creek apartment pond leakage	Elk Creek apartments detention pond leaks onto sidewalk and S Rhodefer.	Refer to 4.30.	Less urgent
2.43	Seal Street south end	Seal Street Drainage Improvements	Between Cedar and Washington, especially where alley meets Seal, ponding extends widely	Confirm property line and shared responsibilities, if any. See 3.01 listed in Table 5.	MP Table 5 #3.01

**Table D-2 (continued). Inventory of Problems on City-Owned Property.**

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
2.44	N Sequim Avenue at Fir, northwest corner	NW corner Sequim Avenue and Fir Street	11/25/13: vac'd CB, 4" drain pipe clogged with roots, sediment, couldn't open cleanout (could be related to clogging problem at 90/elbow in pipeline).	Re-evaluate problem and clarify maintenance vs. repair/capital project. Also refer to Project 4.11.	Less urgent
2.45	N Sequim Avenue at Hendrickson, northwest corner	NW corner Sequim Avenue and Hendrickson	Check for flooding at grate where ditch enters pipe. Sequim-Prairie ditch.	Refer to Project 4.12.	Less urgent
2.46	N Sequim Avenue at Spruce, southeast corner	SE corner Sequim Avenue and Spruce	Storm drain backs up (staff reported).	Re-evaluate problem and perform maintenance if needed.	Less urgent
2.47	S Sequim Avenue at Hammond corner	SW corner Sequim Avenue and Hammond	Persistent ponding in front of dentist's office.	Re-evaluate problem and clarify maintenance vs. repair/capital project.	Less urgent
2.48	S Sequim Avenue at Prairie, southeast corner	SE corner Sequim Avenue and Prairie	Pond forms since CB inlet is too far from curb.	Re-evaluate problem and perform maintenance or repair if needed (adjust structure rim and replace surrounding pavement to improve drainage).	Less urgent
2.49	E Silberhorn just east of River Road	East portion Silberhorn and River intersection	Persistent ponding. Pavement is eroding. No stormwater facilities.	Potential future capital project to add infiltration facilities.	Table 5
2.50	E Silberhorn east of Petal Lane where ditch from south comes out, across from 693 East Silberhorn	Silberhorn Road Drainage Improvements	Runoff comes from undeveloped land south of subdivisions. Check during storms. Includes runoff from west Happy Valley.	Refer to problem 4.14 Evaluate problem as part of 1.00 (Sequim Area Stormwater- Watershed Plan).	Less urgent
2.51	E Silberhorn at Rolling Hills	Eureka irrigation ditch at Silberhorn	Eureka ditch carries runoff from south; overflows to Silberhorn Road in large storm events. Check during storms. Includes runoff from West Happy Valley.	Re-evaluate problem and clarify maintenance roles and needs. Also refer to problem 4.14 Evaluate problem as part of 1.00 (Sequim Area Stormwater- Watershed Plan).	Less urgent

**Table D-2 (continued). Inventory of Problems on City-Owned Property.**

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
2.52	Spyglass/Wash Harbor Loop at north end of Simdars	N Simdars intersection	Check after storm (year round). Groundwater leaks out asphalt on Simdars, runs down street to west. Salted when freezing for school bus safety.	Re-evaluate problem and repair using City maintenance staff or small works contract. Potential future capital project.	Less urgent
2.53	W Spruce Street just west of Fifth, south and north side	W Spruce Street Structure Upgrade	Catch basin and perforated pipe are undercapacity, causing flooding of roadway and private property (north side). City recently cleaned structure and jetted perforated pipe, and extended pipe and capacity (2015).	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan (if flooding continues, upgrade the infiltration system).	MP Table 5
2.54	West Washington at Home Depot etc.	Sequim Village/ Home Depot	Swale seeps onto sidewalk. Creates icy sidewalk during freeze.	Moved. Refer to project 4.41.	Less urgent
2.55	E Washington at Still-Hammond Road intersection	Still-Hammond-Washington	Check during storm. Used to back up but repaired 2012 using larger pipe.	City to check and confirm this problem has been addressed.	Less urgent
2.56	E Washington east of S Rhodefer	Rhodefer and Washington	Irrigation ditch seems undersized for carrying stormwater. Could flood Washington Street if overflows.	Evaluate problem as part of 1.00 (Sequim Area Stormwater- Watershed Plan).	Less urgent
2.57	West Sequim Bay Road (near Elk Loop and others)	West Sequim Bay Road east of Rhodefer	Watch for private detention pond overflow into City street/ditch.	Re-evaluate problem and contact facility owner if needed. Moved to 4.42	Less urgent
2.58	West Sequim Bay Road and Fairweather	(see above)		Combined with 2.57; refer to 4.42.	Less urgent
2.59	West Sequim Bay Road west end near Washington	West Sequim Bay Road west of Rhodefer	Stormwater goes under Wash. then under WSB Road to wetland on north side.	Check drainage and culvert capacity during storms. Re-evaluate problem and clarify maintenance/upgrade needs.	Less urgent

**Table D-2 (continued). Inventory of Problems on City-Owned Property.**

<b>Problem No.</b>	<b>Location</b>	<b>Problem/ Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
2.60	West Sequim Bay Road, middle section east of Wash. Harbor Road	West Sequim Bay Road east of Wash. Harbor Road	Runoff flows to Bell Creek via roadside ditches and Highland irrigation network (discharge is at about RM 0.6)	Check drainage and culvert capacity during storms. Re-evaluate problem and clarify maintenance/upgrade needs.	Less urgent
2.61	N Simdars-Spyglass/ Wash Harbor Loop intersection, former WS DOT pond	Former DOT ponds	City owned. Retention pond full in winter.	Check after storms; re-evaluate and perform maintenance if needed. Potential future capital project.	Less urgent
2.62	Roadside ditch along West Sequim Bay Road uphill from Marina	West Sequim Bay Road Roadside Ditch Improvements	Ditch overflows whenever driveway culverts clog, washing out road.	Potential solution provided in Table 5 of the Master Plan.	MP Table 5
2.63	Prairie Street between Sequim Avenue and Second Avenue	W Prairie Green Street Upgrade (between Sequim Avenue and Second Avenue)	Existing street has no stormwater system (typical of most downtown neighborhoods); street runoff enters private property and ponds and/or infiltrates.	Proposed for CIP. Solution provided in Table 5 of the Master Plan and Appendix F.	CIP Table 6
2.64	W Fir between N 5th and Sequim Avenue	W Fir between 5th and Sequim Avenue Drainage Improvements	Street runoff enters school district property and ponds against Admin building; in largest storms, runoff continues east across yard and exits on Sequim Avenue.	Potential solution provided in Table 5 of the Master Plan. Reconstruction scheduled in 2016-18; also see 2.28 re: W Fir street upgrade.	MP Table 5 (also 2.28)
2.66	Rhodefer and E Washington catch basin	N Rhodefer at Washington Drainage Improvements	Catch basin at crosswalk is covered with asphalt; line to next one (on west side of Rhodefer) clogged (roots?); next CB fills with runoff from ditch along north side Wash. as well, backs up.	Maintenance performed 2015; check during storms. Also refer to 2.41 and 2.56.	Less urgent
2.67	E Cedar south side east of Dunlap	E Cedar Drainage Improvements	Runoff from the west flows to private property (storage units) and continues to front yard of apartment complex down street.	Potential solution provided in Table 5 of the Master Plan. (Streets crew added berm Fall 2015.)	MP Table 5

Table D-2 (continued). Inventory of Problems on City-Owned Property.

Problem No.	Location	Problem/ Project Name	Problem	Recommended Approach	Priority
2.68	Emerald Highlands detention ponds	Emerald Highlands pond repair and maintenance	City-owned. Pond retains water through dry season. Vegetation prevents access for inspection and maintenance. North pond drains to Bell Creek at 101 off ramp; south pond drains to west (to Creek).	Remove brush; check valves and outlets; restore capacity if needed. Update Fall 2015: Brush cleared, outlet valves opened, ponds drained. City will monitor silt and water levels. South pond needs maintenance.	CIP Table 6
2.69	Olympic Crest detention pond	Olympic Crest pond improvements	City-owned. Pond retains water through dry season. Outlet backs up with irrigation water in roadside ditch.	Perform maintenance. Adjust slope of outlet pipe or grade of receiving ditch. Update: Fall 2015 staff adjusted grade.	Less urgent/ fixed
2.70	500 N. Blake Avenue, entrance to Reuse Park	Reuse Park entrance	Major pond forms along south curb. Overflow from SW corner Fir and Blake contributes.	Resolve Fir and Blake infiltration issues. (See 2.14) Re-evaluate problem and perform maintenance if needed.	Less urgent
2.71	Fir and Knapman, SW corner	Fir and Knapman	Retrofit/ drainage improvements needed.	Re-evaluate problem. Potential future capital project to add infiltration capacity.	Less urgent
2.72	W Hammond, east of S 7th Avenue	W Hammond Drainage Improvements	Ponding covers entire street in large events.	Re-evaluate problem and clarify maintenance vs. repair/capital project.	Less urgent
2.73	W Brownfield, east of S 3rd Avenue	W Brownfield Drainage Improvements	Ponding covers entire street in large events.	Re-evaluate problem and clarify maintenance vs. repair/capital project.	Less urgent
2.74 (formerly 3.07)	Washington and Sequim intersection NE and SE corners	Washington and Sequim intersection	CB fills and flows north across street to another CB connected to drywell. May lack sufficient capacity for infiltration.	Formerly 3.07. Potential solution listed in Table 5 of the Master Plan. Potential future capital project.	MP Table 5
2.75	9th Avenue and Honeycomb	9th Avenue and Honeycomb drainage improvements	Drainage flows to Helen Court area; street surface degraded on north side where water sits.	Potential solution listed in Table 5 of the Master Plan. Potential future capital project.	MP Table 5

**Table D-3. Misconnected Street Drain Problems.**

<b>Problem No.</b>	<b>Location</b>	<b>Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
3.01 (formerly 2.43)	Seal Street between Cedar and Alley	Seal Street Drainage Improvements	Flooding of private parking lot near intersection of West Cedar Street and Seal Street due to limited capacity of infiltration system. Flooding extends to alley and floods nearby private property.	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan. Re-evaluate ownership and maintenance record as well.	MP Table 5
3.02	N 7th (west shoulder and parking lot for flooring business)	N 7th Avenue Structure	City street drainage at the west gutter of 7th Avenue is connected to private drywell in parking lot of flooring business along Seventh Avenue. May have been disconnected recently.  Update 12/2015: checked and found drywell connected inside ROW to west of drain.	Re-evaluate problem; check during storms. Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan. 12/2015: existing drywell should handle infiltration well; if not, drains north and east down W Spruce Street.	MP Table 5
3.03	S 7th, west side at Eureka ditch crossing (Sawadee parking lot)	Eureka ditch at private parking lot on S 7th Avenue	Parking lot drains to manhole lid with holes into irrigation conveyance. Privately-owned storm drain also nearby, but elevation too high to function.	Re-evaluate problem and follow up with private facility owner and irrigation company. Consider evaluating problem as part of 1.00 (Sequim Area Stormwater- Watershed Plan).	Less urgent
3.04	South 7th Avenue, east side at Eureka ditch crossing (at south property line of McDonalds)	South 7th Avenue Drainage Improvements	Stormwater runoff from private parking lot on the W side of S 7th Avenue is piped under S 7th Avenue and potentially into irrigation vault/network on the east side of S 7th Avenue. (Based on field observations the stormwater may actually be piped into a perforated pipe under the planter or parking lot).	Evaluated as part of Stormwater Problem Field Investigations. Potential solution provided in Table 5 of the Master Plan.	MP Table 5
3.05	W Washington at Columbia Bank corner, both sides of entrance to parking lot	SPTI culvert past Safeway	Storm drains may be directly connected to irrigation conveyance flowing north past Safeway toward Spruce Street.	Re-evaluate problem and follow up with irrigation company. Consider evaluating problem as part of 1.00 (Sequim Area Stormwater- Watershed Plan).	Less urgent

Table D-3 (continued). Misconnected Street Drain Problems.

<b>Problem No.</b>	<b>Location</b>	<b>Project Name</b>	<b>Problem</b>	<b>Recommended Approach</b>	<b>Priority</b>
3.06	W Washington at Safeway complex	SPTI culvert past Safeway	Storm drains may be directly connected to irrigation conveyance flowing north past Safeway toward Spruce Street.	Re-evaluate problem and follow up with irrigation company. Refer to 3.05. Consider evaluating problem as part of 1.00 (Sequim Area Stormwater- Watershed Plan).	Less urgent
3.07 (now 2.74)	Sequim Avenue at Washington intersection (southeast and northeast)				
3.08	W Hendrickson Road, east of 5th Avenue	W Hendrickson drainage pipe	Pipe outlet into irrigation ditch on north side Hendrickson, may come from street (or private property—dentist office across street)	Re-evaluate problem and follow up with irrigation company. Could be private property concern vs. City street.	Less urgent

