FIGURES
Figure 2-1
Major Drainage Basins and Sub-basins
City of Bonney Lake
Stormwater Comprehensive Plan
Figure 2-2
Major Pothole Drainage Basins

City of Bonney Lake
Stormwater Comprehensive Plan
Figure 3-1
Stormwater CIP Project
Locations/Priorities
City of Bonney Lake
Stormwater Comprehensive Plan
STORM DRAINAGE SYSTEMS MAP
Drawings
CAPITAL PROJECT NO. 1

POTHOLE 1 PUMP STATION AND CONVEYANCE IMPROVEMENTS

POTENTIAL PERMIT REQUIREMENTS:
• COE NATIONAL DE PERMIT (NWP)
• ECOLOGY SECTION 401 WATER QUALITY CERTIFICATION
• SHORELINE SUBSTANTIAL DEVELOPMENT (OUTFALL)
• WDFW HYDRAULIC PROJECT APPROVAL

DESIGN/IMPLEMENTATION REQUIREMENTS:
• PREPARE TOPOGRAPHIC, BOUNDARY SURVEY
• SET DESIGN CRITERIA (LEVEL OF FLOOD PROTECTION)
• ESTABLISH INUNDATION LIMITS
• ACQUIRE EASEMENTS
• COORDINATE WITH PROJECT POWER (LAKE TAPPS OUTFALL PUMP STATION POWER)

ESTIMATED PROJECT COST: $215,000
• INLET STRUCTURE
• PUMPS/PUMP STATION AND CONTROLS
• 3-PHASE POWER LINE
• 1400 ft 10" HDPE FORCE MAIN
• CULVERT/DITCH IMPROVEMENTS

PLAN - PUMP STATION
NOT TO SCALE
CAPITAL PROJECT NO. 2
POTENTIAL PERMIT REQUIREMENTS:
- COE NATIONAL PERMIT (NWP)
- ECOLOGY SECTION 401 WATER QUALITY CERTIFICATION
- WDFW HYDRAULIC PROJECT APPROVAL
- LOCAL PROJECT PERMITS

DESIGN/IMPLEMENTATION REQUIREMENTS:
- PREPARE TOPOGRAPHIC SURVEY
- SET DESIGN CRITERIA (LEVEL OF PROTECTION)
- ACQUIRE EASEMENTS FOR BENCH EXPANSIONS
- COORDINATE WITH LOCUST DR. IMPROVEMENTS

ESTIMATED PROJECT COST: $132,000
- RAISE 82nd ST.
- LOCUST DR. CULVERTS
- TIGHTLINE EXISTING DRIVEWAY CULVERT
- EXCAVATE BENCH AREA

Plan not to scale

Roadway Section

Drawing 2
Capital Project No. 2
Stormwater Comprehensive Plan
City of Bonney Lake
CAPITAL PROJECT NO. 3
81st & 182nd ST STORM DRAINAGE IMPROVEMENTS

POTENTIAL PERMIT REQUIREMENTS:
• LOCAL PROJECT PERMITS

DESIGN/IMPLEMENTATION REQUIREMENTS:
• HYDRAULIC ANALYSIS OF DOWNSTREAM SYSTEM
• SITE AND DRAINAGE SYSTEM SURVEY
• HYDROLOGIC ANALYSIS TO VERIFY 100-YEAR FLOWS

ESTIMATED PROJECT COST: $52,000
• 575' OF 12" DRAINAGE PIPE
• TYPE 1 CATCH BASINS (3)
• SHOULDER IMPROVEMENTS
CAPITAL PROJECT NO. 4
BONNEY LAKE MANOR INFILTRATION SYSTEM IMPROVEMENTS

POTENTIAL PERMIT REQUIREMENTS:
• LOCAL PROJECT PERMITS

DESIGN/IMPLEMENTATION REQUIREMENTS:
• HYDRAULIC ANALYSIS TO VERIFY 100-YEAR FLOWS
• GEOTECHNICAL ANALYSIS TO DETERMINE INFILTRATION RATE
• SITE AND DRAINAGE SYSTEM SURVEY

ESTIMATED PROJECT COST: $23,000
• 50' NEW INFILTRATION TRENCH
• 50' REPLACE EXISTING INFILTRATION TRENCH
• CATCH BASIN

STORMWATER INFILTRATION TRENCH SECTION
NOT TO SCALE
CAPITAL PROJECT NO. 5
77th ST. & 183rd AVE. INfiltrATION SYSTEM IMPROVEMENTS

POTENTIAL PERMIT REQUIREMENTS:
- LOCAL PROJECT PERMITS

DESIGN/IMPLEMENTATION REQUIREMENTS:
- HYDROLOGIC ANALYSIS TO VERIFY 100-YEAR STORM FLOWS
- GEOTECHNICAL ANALYSIS TO DETERMINE INFILTRATION RATE
- SITE SURVEY TO DETERMINE TRENCH LOCATION

ESTIMATED PROJECT COST: $10,000
- INFILTRATION TRENCHES
- CATCH BASIN

TYPICAL SECTION - INFILTRATION TRENCH

Drawing 5
Capital Project No. 5
Stormwater Comprehensive Plan
City of Bonney Lake

MONTGOMERY WATER GROUP, INC.
CAPITAL PROJECT NO. 6
LAKE TAPPS OUTFALL IMPROVEMENTS AT CHURCH LAKE DR.

POTENTIAL PERMIT REQUIREMENTS:
• SHORELINE SUBSTANTIAL DEVELOPMENT
• WDFW HYDRAULIC PROJECT APPROVAL
• LOCAL PROJECT PERMITS

DESIGN/IMPLEMENTATION REQUIREMENTS:
• HYDROLOGIC ANALYSIS TO DETERMINE 100-YEAR STORM FLOWS
• HYDRAULIC ANALYSIS OF DOWNSTREAM SYSTEM
• SITE AND DRAINAGE SYSTEM SURVEY

ESTIMATED PROJECT COST: $42,000
• 350' OF 24" DRAINAGE PIPE
• 20' OF 30" DRAINAGE PIPE
• TYPE 2 CATCH BASIN
STORMWATER INFILTRATION TRENCH SECTION

NOTES:

1. PIPE FOR STORM DRAIN INFILTRATION SYSTEMS SHALL MEET THE REQUIREMENTS OF SECTION 6.8.8.2.

2. PERFORATED CONCRETE UNDERDRAIN PIPE MEETING W.S.D.O.T. SPECIFICATIONS CHARTER 9-05.2 (2) AND A.A.S.H.T.O. DESIGNATION M175, TYPE I, MAY BE USED WITH THE ADDITIONAL CONDITIONS: THE PERFORATIONS SHALL BE CIRCULAR AND A MINIMUM OF 1/2 - INCH IN DIAMETER. THEY SHALL BE CLEANLY CUT AND BE SMOOTH AND UNIFORM WITH NO EXCESS CONCRETE LEFT FROM THE HOLE PERFORATIONS PROCESS. THERE SHALL BE A MINIMUM OF 7 SETS OF PERFORATIONS WITH 2 HOLES PER SET OF PERFORATIONS FOR EACH 3-1/2 FEET OF PIPE LENGTH. RUBBER GASKETS OR GROUTING OF JOINTS FOR PERFORATED PIPE RUNS WILL NOT BE REQUIRED. INSPECTION OF THE PERFORATED CONCRETE PIPE SHALL BE MADE BY THE MUNICIPALITY BEFORE INSTALLATION OF THE PIPE IN THE GROUND.
EMERGENCY OVERFLOW BERM

RUNOFF FILTERS THROUGH 20' WIDE GRASS BUFFER STRIP

WRAP DRAIN ROCK W/FILTER FABRIC TO W/IN 6" OF SURFACES (ALL SIDES).

TRENCH 3-8 FEET DEEP, FILLED WITH 1.5-4 INCH DIA. DRAIN ROCK

SAND FILTER 6 INCHES DEEP OR FABRIC EQUIVALENT.

RUNOFF EXFILTRATES THROUGH UNDISTURBED SUBSOILS.

*NOTE: FILTER FABRIC NOT REQUIRED ON BOTTOM IF 6-12 INCHES OF SAND IS USED.

SCHEMATIC OF AN INFILTRATION TRENCH W/GRASS FILTER

N.T.S.