City of Stanwood
Comprehensive Water System Plan
Storage Facilities Data

Reservoir Data

Reservoir Name	Pressure Zone	Year Const.	Material	Capacity (gallons)	Overall Height (feet)	Diameter (feet)	Water Base Elv (feet)	Overflow Elv (feet)	Ground Elv (feet)	Seismic Restraint (Y or N)
Knittle #1	297	1990	Concrete	200,000	50	26	251.0	297.0	251	Yes
Knittle #2	297	1997	Steel	1,000,000	47	61	251.0	297.0	251	Yes
Cedarhome	365	2009	Composite	550,000	35.5	53.33	329.5	365.0	250	Yes
Bailey #1	125	1989	Concrete	200,000	17.5	45	108.0	124.0	108	Yes
Bailey #2	125	1989	Concrete	200,000	17.5	45	108.0	124.0	108	Yes

Storage Data

Reservoir Name	Max Water Height (feet)	Volume Per Foot (gallons)
Knittle #1	46.0	3,972
Knittle #2	46.0	21,862
Cedarhome	35.5	16,710
Bailey #1	16.0	11,897
Bailey #2	16.0	11,897

Level Control Data

Reservoir Name	Controlled Supply Facility	Reservoir Have Telemetry
Knittle #1	Bryant & Cedarhome Wells	Yes
Knittle #2	Bryant & Cedarhome Wells	Yes
Cedarhome	Knittle & Cedarhome BPS	Yes
Bailey #1	Altitude Control Valve from 297 Zone	Yes
Bailey #2	Altitude Control Valve from 297 Zone	Yes

City of Stanwood
Comprehensive Water System Plan
Pressure Reducing Station Data

Station Data

PRV Name	Upper Pressure Zone	Lower Pressure Zone	Year Const.	Ground Elv (feet)	Normal Pressure Inlet (psi)	Normal Pressure Outlet (psi)	Station Operation Status
276th St & 80th Dr	297	265	1992	140	55	45	Active
272nd & 81st (To Be Abandoned)	297	242	1992	115	85	45	To Be Abandoned 2014
280th & 83rd	297	255	1992	159	54	38	Active
288th & 89th	297	252	1992	125	80	45	Active
282nd & Nordic Wy	297	255	1999	111	85	56	Active
SR 532 & Pioneer Hwy	297	125	1997	36	111	38	Active
Copper Station (75th Dr)	365	297	2007	200	74	52	Active
277th & 71st (Cedarhome Vista)	365	297	2004	200	75	44	Active
281st & 70th (Cedarhome Farms)	365	297	2004	185	91	55	Active
278th & 78th (Summerset)	365	297	2004	200	71	45	Active
Cedarhome Dr & BNRR	245	125	2006	12	100	50	To Be Activated 2014
272nd & 81st (2014)	297	245	2014	111	80	55	To Be Activated 2014

PRV Set Point Data[1]

PRV Name	Description	Valve Size (inches)	Valve Mfgr	Valve Model	Valve Elv (feet)	Valve Set Point (psi)	Valve Set Point (feet H.E.)
276th St & 80th Dr	Small PRV	2	Cla-Val	90G-01AS	135	50	251
	Large PRV	4	Cla-Val	90G-01AB	135	45	239
272nd & 81st (To Be Abandoned)	PRV	2	Cla-Val	90G-01AS	110	45	214
280th & 83rd	Small PRV	2	Cla-Val	90G-01AS	154	38	242
	Large PRV	4	Cla-Val	90G-01AB	154	33	230
288th & 89th	PRV	2	Cla-Val	90G-01AS	120	45	224
282nd & Nordic Wy	Small PRV	3	Cla-Val	90G-01AS	106	56	235
	Large PRV	6	Cla-Val	90G-05ABS	106	44	208
SR 532 & Pioneer Highway[2]	Small PRV	3	Cla-Val	90G-01AS	31	38	119
	Large PRV	8	Cla-Val	90G-05ABS	31	35	112
Copper Station (75th Dr)	Small PRV	3	Cla-Val	90G-01BCSY	195	35	276
	Large PRV	8	Cla-Val	90G-01BCSY	195	30	264
277th & 71st (Cedarhome Vista)	Small PRV	2	Cla-Val	90G-01BCSYKC	195	39	285
	Large PRV	6	Cla-Val	90G-01BCSYKC	195	34	274
	Backpressure sustaining	3	Cla-Val	50A-01BKC	195	54	320
281st & 70th (Cedarhome Farms)	Small PRV	2	Cla-Val	90G-01BCSY	180	40	272
	Large PRV	6	Cla-Val	90G-01BCSY	180	35	261
278th & 78th (Summerset)	Small PRV	2	Cla-Val	90G-01ABCS	195	37	280
	Large PRV	6	Cla-Val	90G-01BCSY	195	32	269
Cedarhome Dr & BNRR	Small PRV	3	Cla-Val	90G-01	7	46	113
	Large PRV	8	Cla-Val	90G-01	7	44	109
272nd & 81st (2014)	Small PRV	3	Cla-Val	90G-01	106	60	245
	Large PRV	8	Cla-Val	90G-01	106	55	233

[1] Valve setpoint data based on GC Systems September 2013 Valve Settings Report.
[2] The City's actual valve set points prior to PZ2 were 31 psi (small PRV) and 27 psi (large PRV).

City of Stanwood
Comprehensive Water System Plan
Well Facilities Data

Well Data

Well Name	Pressure Zone	Year Const.	Current Pumping Rate (gpm)	Max. Well Capacity (gpm)	Max Inst Water Right (gpm)	Casing Size (inches)	Well Depth (feet)	Well Screen Depth (feet)	Pump Intake Depth (feet)	Static Water Depth (feet)	Pumping Water Depth (feet)	Ground Elv (feet)
Bryant Well #1	125	1948	1350	1350	2000	12	250	50 - 245	129	83.5	88.5	61.5
Bryant Well #2	125	1966	0	0	*	12	200	168 - 200	128	81	86	62.9
Bryant Well #3	125	In design	0	1000	*	16				70-90		92
Fure Well	297	1951	0	100	150	12	157	145 - 150	150			105
Hatt Slough Springs	125	1934	0	260	1125	n/a	n/a	n/a			n/a	
Cedarhome Well	297	2008	600	600	500	12 & 16	490	365-480		130	154	137
Sill Well	297	1958	0	0	600		235	197 - 235				135
					4375							

* Shares water right with Bryant Well #1

Well Pump Data

Pump Name	Pump Manufacturer	Pump Model	Pump Type	Design Capacity (gpm)	Design Head (feet)	Motor Mfgr	Motor Size (HP)	Control Valve Size & Model	Have Standby Power	Have E.G. Set Receptacle
Bryant Well #1	Peerless	12MA	Turbine	1000	255	GE	75	8" (CV), Chapman	No	No
Bryant Well #2			Submersible					4" (FCV), Cla-Val	No	No
Fure Well	Jacuzzi	S6B/15S675-15	Submersible	100	300	Franklin	15	3" (CV)	No	No
Hatt Slough Springs (Pump1)	Worthington	158029 2DN	Centrifugal	115	158	Industrial Elec.	10	6" (CV), MHV&F Co.	No	No
Hatt Slough Springs (Pump2)	Worthington	158029 2DN	Centrifugal	115	158	Master Elec.	10	6" (CV), MHV&F Co.	No	No
Hatt Slough Springs (Pump3)	Worthington	158029 2DN	Centrifugal	115	158	Industrial Elec.	10	6" (CV), MHV&F Co.	No	No
Cedarhome Well	500									
Sill Well	WELL ABANDONED AND OUT OF SERVICE/NO POWER/NO SYSTEM CONNECTION								No	No

Well Pump Curve Data

Well Name	Point 1		Point 2		Point 3		Pump Serial Number	Pump Impeller Diameter
	Flow (gpm)	Head (feet)	Flow (gpm)	Head (feet)	Flow (gpm)	Head (feet)		
Bryant Well #1	600	305	1000	255	1400	150	47748	8.6875"
Bryant Well #2	600	280	1000	231	1400	126	16832	6.4375"
Fure Well	50	740	80	540	100	340	9262-2711	
Hatt Slough Springs (Pump1)	80	165	160	150	240	110	XM1730	6.38"
Hatt Slough Springs (Pump2)	80	165	160	150	240	110	XK1596	6.38"
Hatt Slough Springs (Pump3)	80	165	160	150	240	110	XK1610	6.38"
Cedarhome Well								
Sill Well	OUT OF SERVICE/NO POWER/NO SYSTEM CONNECTION							

Control Data

Well Name	Control Facility	Supplied Pressure Zone	Supply To Zone Priority	Well Have Telemetry
Bryant Well #1	Knittle Reservoir Level	297	Primary Supply	Yes
Bryant Well #2	OUT OF SERVICE	297	OUT OF SERVICE	No
Fure Well	OUT OF SERVICE	297	OUT OF SERVICE	No
Hatt Slough Springs	Continuous	125	Primary Supply	No
Cedarhome Well	Knittle Reservoir Level	297	Primary Supply	Yes
Sill Well	OUT OF SERVICE	297	OUT OF SERVICE	No

City of Stanwood
Comprehensive Water System Plan
Pump Station Facilities Data

Pump Station Data

Name	Suction Pressure Zone	Discharge Pressure Zone	Year Const.	Above or Below Grade	Maximum Capacity (gpm)	Meter Size & Model	Have Standby Power	Have E.G. Set Receptacle	Have Surge Protection
Cedarhome	297	365	2006	Above	1000	8"	No	No	No
Knittle	297	365	1998	Above	1360	3"	No	Yes	No

Pump Data

Pump Name	Pump Manufacturer	Pump Model	Pump Type	Current Pump Rate (gpm)	Design Capacity (gpm)	Design Head (feet)	Motor Mfgr	Motor Size (HP)	Control Valve Size & Model
Cedarhome - Pump 1	Peerless	C1230A	Centrifugal	500	500	88	Baldor	20	4 (CV 60-11)
Cedarhome - Pump 2	Peerless	C1230A	Centrifugal	500	500	88	Baldor	20	4 (CV 60-11)
Cedarhome - Pump 3	Peerless	C1230A	Centrifugal	500	500	88	Baldor	20	4 (CV 60-11)
Knittle - Pump 1	Paco	1070-7	Centrifugal	15	15	110	Baldor	3	1.5 (CV)
Knittle - Pump 2	Paco	1270-9	Centrifugal	85	85	110	Baldor	5	3 (WCV)
Knittle - Pump 3	Paco	1270-9	Centrifugal	85	85	110	Baldor	5	3 (WCV)
Knittle - Pump 4	Paco	5012-3	Centrifugal	1175	1175	110	US Motors	50	10 (WCV)

Pump Curve Data

Pump Name	Point 1		Point 2		Point 3		Pump Serial Number	Pump Impeller Diameter
	Flow (gpm)	Head (feet)	Flow (gpm)	Head (feet)	Flow (gpm)	Head (feet)		
Cedarhome - Pump 1	167.3	109	500	88	695.6	67.2	MD14239	10.1
Cedarhome - Pump 2	167.3	109	500	88	695.6	67.2	MD14239	10.1
Cedarhome - Pump 3	167.3	109	500	88	695.6	67.2	MD14239	10.1
Knittle - Pump 1	5	112	40	105	80	90	97RR207102	5.4
Knittle - Pump 2	20	122	85	110	150	55	97RR207101-A	5.16
Knittle - Pump 3	20	122	85	110	150	55	97RR207101-B	5.16
Knittle - Pump 4	600	132	1175	110	1700	60	97RR207103	11.55

Pump Control Data

Pump Name	Control Facility	Supplied Pressure Zone	Supply To Zone Priority	Pump Operation Priority	Station Have Telemetry
Cedarhome - Pump 1	Pressure Switch	365	Primary Supply	Primary	Yes
Cedarhome - Pump 2	Pressure Switch	365	Primary Supply	1st Lag	Yes
Cedarhome - Pump 3	Pressure Switch	365	Primary Supply	2nd Lag	Yes
Knittle - Pump 1	365 Zone Pressure	365	Secondary Supply	Primary	No
Knittle - Pump 2	365 Zone Pressure	365	Secondary Supply	1st Lag	No
Knittle - Pump 3	365 Zone Pressure	365	Secondary Supply	2nd Lag	No
Knittle - Pump 4	365 Zone Pressure	365	Secondary Supply	Fire Flow	No

City of Stanwood
Comprehensive Water System Plan
Check Valve and Zone Valve Data

Check Valves

Location	Low Pressure Zone	High Pressure Zone	Hydraulic Model Pipe No.	Year Const.	Valve Size	Valve Type
276th & 74th St	297	400	617	1999	8	

Zone Valves

Location	Low Pressure Zone	High Pressure Zone	Hydraulic Model Pipe No.	Valve Size
Pioneer Hwy & Cedarhome Dr N	245	255	613	8
276th & 74th St	297	365	866	8
274th St NW becomes Cedarhome Rd	265	297	927	2
83rd Dr NW & 272nd St NW	265	297	616	6
Pioneer Hwy @ Bailey Xmain	125	245	1169	16
74th Dr BW & Approx. 287th St NW	297	365	1438	8
288th St NW & 68th Ave NW	297	365	1404	8