NUMBER		NOT REQ'D	NOT DONE	SATISFIED	**WATER Checklist**
					REVIEW #
					BY / DATE
	ITEMS				**Location in Standards**
	General				
1	Review General checklist	☐	☐	☐	See web site
2	Plans satisfy City's Master Plan	☐	☐	☐	5.1.1(A), 5.1.4(A.2), Integrated Water Master Plan June 2008
3	Water Design Report	☐	☐	☐	2.11.8, 5.1.2(A)
	Cover Sheet				
4	COG General Notes for Water Construction (on cover or sheet 2)	☐	☐	☐	0.4.6
5	MCESD / LPSCO Approval blocks	☐	☐	☐	0.2.3, 2.3.2(C), 2.3.3, 2.3.4(B.5) 2.6.12
6	Master Utility sheet at 1"=100' (on cover or sheet 2)	☐	☐	☐	2.6.15(D)
	Plan Sheets				
7	Scales 1"=20 horizontal, 1"=4 vertical	☐	☐	☐	2.11.2(L)
8	Pipe size, length, and materials shown	☐	☐	☐	2.11.6
9	All mains in R/W or esm't to be DIP	☐	☐	☐	5.1.4(D.1.c), See approved materials list on City Website
10	DIP 4"-12"=CL 350, 14"-20"=CL 250, 24"-64"=CL 200. Mains on private property may be C900 PVC CL 200	☐	☐	☐	5.1.4(F.3)
11	Line size 8" min, 16" min transmission main on Arterials & Collectors	☐	☐	☐	5.1.4(B)(C)
12	Stub outs -16" per mile, 12" per 1/2 mile, 8" per 1/4 mile on Arterial Streets	☐	☐	☐	
13	Polyethylene on pipes larger than 12"	☐	☐	☐	5.1.4(F.2)
14	Water line radius shown (if different than centerline data)	☐	☐	☐	5.1.4(J4)
15	Water line location stationed off monument line or roadway centerline	☐	☐	☐	5.1.2(C.2) 2.11.6(B.1.a.), G-3130, G-3132, G-3134, G-3136
16	20' min waterline easement for City maintained pipes outside a dedicated R/W (must be larger if multi utilities are co-located or if additional area is req'd for maintenance)	☐	☐	☐	5.1.4(G.5)

Revised 4/24/2014

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	ITEMS				**Location in Standards**
17	Any trench cut in existing pavement >600' in length must include resurfacing the pavement.	☐	☐	☐	MAG 336.2.4
18	Per Mag 336.2.4.1.F – for waterlines greater than 300 feet, half street seal coat is required	☐	☐	☐	See Note Below
19	In areas not accessible by normal excavation methods/culvert crossings/36" SD, IRRI and greater install a sleeve, C900 PVC Cl 200, not filled, dust covers at ends, skids strapped to waterline	☐	☐	☐	5.1.4(G.6.)
20	Abandoned ex water infrastructure (pipes, services, meter box) to be approved by Engineering	☐	☐	☐	5.1.4(J.7)
21	Water lines 12" & up shall be profiled (label slopes, elevations, cover)	☐	☐	☐	2.11.6(A.4.)
22	Looped system or max 400' for dead end	☐	☐	☐	5.1.4(J.1) 5.1.6(B.2.b.6)
23	Sampling Stations 1 every 100 units	☐	☐	☐	5.1.4 (E.3), G-3370
24	Extend to serve adjacent?	☐	☐	☐	5.1.1(C.5)
25	Future waterline extensions require a valve, 13' min stub and a fire hydrant at end (valve to be closed)	☐	☐	☐	5.1.5(A.2.h)
26	PRV's or Boosters? (on hill side development)	☐	☐	☐	G-3323
27	Restraint Joints on all fittings & dead ends on pipes 4" & larger (No thrust blocks)	☐	☐	☐	MAG 303-1
28	Long transmission mains of 16" or > shall be marked with marker balls every 440'	☐	☐	☐	5.1.4(B.3), G-3305
	Separation and Cover				
29	Pipes < 12" need 36" of cover below FG, pipes > or = 12" need 48" cover below FG (add to construction note or dimension)	☐	☐	☐	5.1.4(H), G-3301
30	Water service cover shall be 36" min	☐	☐	☐	5.1.4(D.1.e), G-3310

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31	Min horz sep called out on plan view	☐	☐	☐	5.1.2(C.6), 5.1.4(D.4b), 5.1.4(G.1), MAG 404-1
32	Water & Sewer separation & special protection (No water shall be < 2' below sewer or < 1' above)	☐	☐	☐	5.1.4(G.1), 6.3.1(E.2.), MAG 404-1,2,3
33	All utility crossings shown	☐	☐	☐	5.1.4(G), G-3300
34	2' min cover over washes, culvers, storm drain, ect.	☐	☐	☐	5.1.4(J.5)
35	Encasement shown plan & profile	☐	☐	☐	2.11.6 5.1.2(C.3.)
36	3' cover going thru basins.	☐	☐	☐	3.3.6(C.7.e)
	Fire Hydrants				
37	Use COG Detail for Fire Hydrants	☐	☐	☐	G-3330
38	Fire Hydrants tied to roadway centerline by station & offset	☐	☐	☐	2.11.2, 5.1.6
39	FH markers shown on paving plans				5.1.6(B), G-3212
40	FH located at curb returns & BC	☐	☐	☐	G-3330, MAG 362
41	FH at end of cul-de-sac & dead ends, 400' max from looped line	☐	☐	☐	5.1.4(J.3) 5.1.6(B.2.b.6)
42	FH spacing 400' res, 300' multi-use, 1320' (at intersections) no adjacent development, 1000' where no intersections or development	☐	☐	☐	5.1.6(B.2.)
	Valves				
43	Space valves so that no more than 2 fire hydrants are out of service at any given valve closure or no more than 30 homes without water per closure	☐	☐	☐	5.1.5(A.2.c)
44	Place valves on branches so main is still in service during closures	☐	☐	☐	5.1.5(A.2.g)
45	Place isolation valves on both sides of a culvert or larger storm drain crossing	☐	☐	☐	5.1.5(B.4) G-3301
46	Max valve spacing 660' on distribution, ¼ mile to 1/2 mile max on transmission mains (out of tire path)	☐	☐	☐	5.1.5(A.2.a), 5.1.5(A.2.b)
47	Valve covers are MAG 391-1 type "A"	☐	☐	☐	5.1.5(A.1.f), 5.1.5(A.1.g), G-3321

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	ITEMS				**Location in Standards**
	only, with COG debris cap				
48	Air release valves at hp's on lines 12" & greater	☐	☐	☐	5.1.5(B), G-3301
49	Pipes > 16" req Butterfly Valves & manhole with Bypass Assembly	☐	☐	☐	5.1.5(A.1.b), G-3307, G-3336
	Meter Box				
50	¾" - 1" services = #2 meter box 1-1/2" - 2" services = #4 meter box 3" & > require a vault	☐	☐	☐	5.1.4(D), G-3310, G-3313
51	2" water service line size can be reduced to a 1 ½" or 1" meter, 1" water service line size can be reduced to a ¾ " meter	☐	☐	☐	Per Water Resources Dept
52	Meter box locations in R/W or PUE (1' min behind back of curb or sidewalk)	☐	☐	☐	5.1.4(D) G-3310
53	Meters to be sized per UPC (do not show meter sizes & on-site water line sizes on civil plans, they shall be approved by BS)	☐	☐	☐	5.1.4(D.2.e)
54	Ex meters can be relocated up to 10' max	☐	☐	☐	5.1.4(D.2.g.4)
	Services				
55	1" services min	☐	☐	☐	5.1.4(D), G-3310
56	No 2-1/2" services allowed	☐	☐	☐	5.1.4(D), G-3310
57	Landscape services, coordinate with landscape plans	☐	☐	☐	
58	All nonresidential water & irr services shall have meter & Reduced Pressure Backflow Prevention Device (RPBFPD) Double Check Valve Backflow Prevention Device for Fire Lines only	☐	☐	☐	G-3350, G-3351, G-3352, G-3353
59	Provide a 2" water service on commercial sites with #4 meter box, don't call out for a meter	☐	☐	☐	
60	New services in ex pavement must be bored under pavement. Pavement cuts are not permitted (all new pavement is to remain in a new uncut condition for	☐	☐	☐	5.1.4(D.1.d) 4.1.7(A.7), G-3130, G-3132, Pavement Cut Fee Schedule

NUMBER		NOT REQ'D	NOT DONE	SATISFIED	**WATER Checklist**
					REVIEW #
					BY / DATE
	ITEMS				**Location in Standards**
	a period of 5 years)				
61	NO service taps in lines 16" or larger	☐	☐	☐	5.1.4(D.1.h)
62	Sta and dim services 3' off lot PL	☐	☐	☐	5.1.4(D.1.g.)
63	Dimension non-typ service locations and dimension services on knuckles	☐	☐	☐	5.1.4(D) 2.11.6(B.1.a.)
64	Any ex stub to project that will not be used shall be removed to the main	☐	☐	☐	Per Mark & Ray
	Reclaimed water				
1	Reclaimed water valves shall be painted purple and modified to read "Reclaimed water"	☐	☐	☐	G-3325, Use MAG 391-1 type "A"
2	Requires a 13' min stub and valve at end (valve to be closed)	☐	☐	☐	5.1.5(A.2.h)
3	C900 DR 18 Class 150 pipe allowed	☐	☐	☐	

i. All connection points to the main line in Westar Drive need to have meter vaults installed for the future purpose of isolating The System from the Westar main if so required. The concept would include installing straight piping sections through the meter vaults.

ii. The System shall be constructed to Maricopa County and ADEQ reclaimed water and Non-Potable standards (i.e. securing County ATC's and AOC's).

iii. A note shall be added on the plans indicating that The System meets all ADWR reporting criteria.

iv. All interactions The System will have with City utilities will be constructed in conformance with prevailing City Standards for reclaimed water systems.

v. A note shall be added to the construction plans at each tie-in location to identify that The System is not being constructed to City of Goodyear Engineering Standards and that the City of Goodyear will not accept ownership of the improvements.

vi. A study is provided to the City that models the pressures and verifies that sufficient pressures will be available at the most remote portions of the system.

The trench must be compacted to its required density, and required ABC must be in place and compacted prior to the placement of the asphalt concrete.
For cuts greater than 300 feet in length the entire area shall then be slurry seal coated in accordance with Section 332 or as otherwise specified. This seal coat shall extend from the edge of pavement or lip of gutter to the street centerline except that on residential streets less than 36 feet face to face of curb or where the pavement patch straddles the centerline, the entire width of street shall be seal coated.

In lieu of placing the seal coat as required previously, and with approval of the Contracting Agency, the Contractor may deposit with the Contracting Agency for credit to the Street Maintenance Department, a negotiated agreed upon amount. The Street Maintenance Department will incorporate this work into their street maintenance program.