

TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT

Maricopa County, Arizona

POLICIES AND PROCEDURES

ADMINISTRATIVE, FINANCIAL, AND OPERATIONAL

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TABLE OF CONTENTS

	PAGE
1.0	GENERAL INFORMATION AND PROCEDURES.....6
<u>1.1</u>	<u>BACKGROUND..... 6</u>
<u>1.2</u>	<u>GENERAL PROVISIONS 6</u>
1.2.1	<i>District Authority, Name, Purpose, and Location</i> 6
1.2.2	<i>Board of Directors</i> 7
1.2.3	<i>Board Authorities</i> 12
1.2.4	<i>Board Records</i> 13
1.2.5	<i>Board Meetings</i> 14
1.2.6	<i>Other Provisions</i> 14
1.2.7	<i>Formation Contracts</i> 15
1.2.8	<i>Supplemental Contracts</i> 18
<u>1.3</u>	<u>DEFINITIONS..... 19</u>
2.0	ADMINISTRATIVE PROCEDURES.....24
<u>2.1</u>	<u>ESTABLISHMENT OF SERVICE 24</u>
<u>2.2</u>	<u>PROVISION OF SERVICE 25</u>
2.2.1	<i>Other Customer Responsibilities</i> 27
2.2.2	<i>THDWID Responsibility</i> 30
<u>2.3</u>	<u>DEPOSITS AND FEES..... 32</u>
2.3.1	<i>Security Deposits</i> 32
2.3.2	<i>Fees and Charges</i> 33
<u>2.4</u>	<u>BILLING..... 36</u>
2.4.1	<i>Assessment Billing</i> 36
2.4.2	<i>Meters and Meter Readings</i> 37
2.4.3	<i>Water Services Billing Procedures</i> 39
2.4.4	<i>Billing Terms</i> 39
2.4.5	<i>Accounts That Are Not Charged a Late Payment Fee</i> 42
2.4.6	<i>Payment Arrangements</i> 42
2.4.7	<i>Water Service and Change of Parcel Ownership</i> 43
2.4.8	<i>Water Service Change of Occupancy</i> 44
<u>2.5</u>	<u>TERMINATION, REFUSAL, AND TEMPORARY DISCONNECTION OF WATER SERVICE 44</u>
2.5.1	<i>Termination of Service Without Notice</i> 44
2.5.2	<i>Refusal of Service</i> 45
2.5.3	<i>Temporary Disconnection of Water Service</i> 46
<u>2.6</u>	<u>CUSTOMER WATER SERVICE COMPLAINTS 46</u>
<u>2.7</u>	<u>WATER CONSERVATION AND EMERGENCY PLANS..... 47</u>
2.7.1	<i>Conservation Monitoring</i> 47
2.7.2	<i>Water Conservation Mandatory Actions</i> 48
2.7.3	<i>Tank Gauging System</i> 49
2.7.4	<i>Emergency Response Plan</i> 50

TABLE OF CONTENTS - continued

	PAGE	
<u>2.8</u>	<u>ANNUAL ORDERS FOR WATER FROM CAWCD, SCOTTSDALE, AND RWCD</u>	<u>57</u>
2.8.1	<i>Orders from Central Arizona Water Conservation District (CAWCD) ..</i>	57
2.8.2	<i>Orders from City of Scottsdale (COS)</i>	58
2.8.3	<i>Orders from Roosevelt Water Conservation District (RWCD).....</i>	58
2.8.4	<i>Reconciliation of Water Orders in December Each Year</i>	58
<u>3.0</u>	<u>FINANCIAL PROCEDURES</u>	<u>60</u>
<u>3.1</u>	<u>ACCOUNTING BASIS</u>	<u>60</u>
<u>3.2</u>	<u>RECORDATION</u>	<u>60</u>
<u>3.3</u>	<u>BUDGETS</u>	<u>61</u>
<u>3.4</u>	<u>ANNUAL REPORT</u>	<u>62</u>
<u>3.5</u>	<u>AUDIT OR FINANCIAL REVIEW</u>	<u>62</u>
<u>3.6</u>	<u>CONTRACTS</u>	<u>62</u>
<u>3.7</u>	<u>INSURANCE</u>	<u>63</u>
<u>3.8</u>	<u>TIME CARDS</u>	<u>63</u>
<u>3.9</u>	<u>MAINTENANCE, STORAGE, AND BACKUP OF RECORDS</u>	<u>64</u>
3.9.1	<i>Record Retention.....</i>	64
3.9.2	<i>Record Back-up.....</i>	65
<u>4.0</u>	<u>OPERATIONAL PROCEDURES</u>	<u>67</u>
<u>4.1</u>	<u>CONSTRUCTION STANDARDS.....</u>	<u>67</u>
4.1.1	<i>Riser Pipes on Water Distribution System</i>	67
<u>4.2</u>	<u>SHUT-DOWN PROCEDURE</u>	<u>68</u>
4.2.1	<i>Shut-Down Procedure Purpose</i>	68
4.2.2	<i>Shut-Down Steps.....</i>	69
<u>4.3</u>	<u>BACKFLOW PREVENTION</u>	<u>69</u>
<u>4.4</u>	<u>MAIN EXTENSIONS AND SERVICE CONNECTIONS</u>	<u>72</u>
<u>4.5</u>	<u>CONFINED SPACE.....</u>	<u>72</u>
4.5.1	<i>Confined Space Program Purpose</i>	72
4.5.2	<i>Confined Space Procedure.....</i>	72
<u>4.6</u>	<u>CONTRACTORS FOR THDWID</u>	<u>74</u>
4.6.1	<i>Certified Contractor</i>	74
4.6.2	<i>Non-Certified Contractor.....</i>	75
4.6.3	<i>Proposals, Bids and Agreements</i>	75
4.6.4	<i>Warranties</i>	77
4.6.5	<i>Use and Maintenance of Materials, Equipment and Premises</i>	78
4.6.6	<i>THDWID's Use of Engineer</i>	78
4.6.7	<i>Contractor's Supervision and Staffing</i>	79
4.6.8	<i>Test and Inspections</i>	80
4.6.9	<i>Contractor Insurance Requirements.....</i>	80
4.6.10	<i>Indemnification</i>	83

TABLE OF CONTENTS - continued

	PAGE
4.6.11 <i>Waivers of Claims</i>	84
4.6.12 <i>Safety and Protection; Emergencies; OSHA Compliance</i>	85
4.6.13 <i>Proprietary Information and Confidentiality</i>	87
4.6.14 <i>Taxes</i>	87
4.6.15 <i>Invoicing</i>	87
4.6.16 <i>Federal Requirements</i>	87
4.6.17 <i>Notices</i>	88
4.6.18 <i>Equal Employment Opportunity</i>	88
4.6.19 <i>Regulatory Requirements</i>	88
4.6.20 <i>Federal Requirements</i>	89
4.6.21 <i>Severability</i>	89
4.6.22 <i>Entirety of Agreement</i>	89
4.6.23 <i>Termination</i>	90
<u>4.7 THDWID SUPERINTENDENT</u>	<u>90</u>
4.7.1 <i>General Responsibilities</i>	90
4.7.2 <i>Water System Management and Operations</i>	91
4.7.3 <i>Capital Improvements</i>	94
4.7.4 <i>Sampling and Analyses</i>	95
4.7.5 <i>Reporting</i>	95
4.7.6 <i>Administrative</i>	96
<u>4.8 THDWID CLERK</u>	<u>97</u>
4.8.1 <i>General Statements</i>	97
4.8.2 <i>Duties</i>	97
<u>4.9 METER READER.....</u>	<u>98</u>
4.9.1 <i>General Statements</i>	98
4.9.2 <i>Duties</i>	98
<u>4.10 CERTIFIED OPERATOR FOR WATER SYSTEM</u>	<u>99</u>
4.10.1 <i>Sampling</i>	99
4.10.2 <i>Laboratory and Reporting</i>	100
4.10.3 <i>Water System</i>	100
4.10.4 <i>Administrative</i>	101
4.10.5 <i>Contractor Requirements</i>	102
<u>4.11 ACCOUNTING FIRM.....</u>	<u>102</u>
4.11.1 <i>General Statements</i>	102
4.11.2 <i>Duties</i>	102
<u>4.12 Payroll Processing Firm.....</u>	<u>103</u>
5.0 THDWID BOARD APPROVAL.....	104

TABLE OF CONTENTS - continued

APPENDICES

- A. BOARD MEMBER HISTORY & ELECTIONS
- B. THDWID BOARD ACTIONS CALENDAR
- C. PACKAGE FOR APPLICATION FOR WATER SERVICE
- D. THDWID ASSESSMENT BILLING COMPUTATION PROCESS
- E. AUCTION WARNING LETTER
- F. AUCTION FINAL NOTICE
- G. AUCTION NOTICE TO INTERESTED PARTIES
- H. AUCTION NEWSPAPER ADVERTISEMENT
- I. AUCTION INFORMATION TO BIDDERS
- J. AUCTION PROCEDURES FOR THE SALE
- K. SUPERINTENDENT AUCTION INTRODUCTION
- L. TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT STORAGE
TANK SYSTEM
- M. BACKFLOW PREVENTION ASSEMBLIES
- N. CONFINED SPACE PROGRAM
- O. EMPLOYEE PAYMENT
- P. EMPLOYEE HANDBOOK
- Q. THDWID CONSERVATION AND DROUGHT CONTINGENCY PLAN
- R. CODE OF CONDUCT
- S. EMERGENCY NOTIFICATION PROCEDURES

1.0 GENERAL INFORMATION AND PROCEDURES

1.1 BACKGROUND

The Tonto Hills Domestic Water Improvement District (THDWID) is a domestic water improvement district formed by the Maricopa County Board of Supervisors on February 18, 2009 as a Special District pursuant to Arizona Revised Statute (A.R.S.) §48, Chapter 6; specifically 48-902 and A.R.S. §48-1012, following an affirmative vote of the property owning electors of the proposed district. A Board of Directors for the THDWID was initially appointed by the Maricopa County Board of Supervisors on February 18, 2009. The five-person Board of Directors assumed control of the THDWID operations when the assets were acquired on December 17, 2010 from the existing private water company, Tonto Hills Utility Company (THUC). THUC's principal assets included: a Central Arizona Project (CAP) municipal water entitlement of 71 acre-feet per year (AF/yr), and a distribution and storage system. Treatment and delivery of CAP water to the community is accomplished through a contract and point of delivery with City of Scottsdale. The CAP entitlement that is not consumed by the community each year is converted to Long Term Storage Credits (LTSCs) via delivery to a Groundwater Savings Facility (GSF) and/or an Underground Storage Facility (USF).

1.2 GENERAL PROVISIONS

1.2.1 District Authority, Name, Purpose, and Location

- A. Authority: The Tonto Hills Domestic Water Improvement District (THDWID) operates under the authority of A.R.S. §48, Chapter 6, as a Special District.
- B. Name: The name of this organization shall be Tonto Hills Domestic Water Improvement District ("the THDWID").
- C. Purpose: The purpose of the THDWID, as stated in the County petition, is to purchase assets of the privately owned and operated water utility, Tonto Hills Utility Company (THUC), and provide potable fresh water to properties within the THDWID. The goals of the THDWID are to:
 - 1. Ensure local control of the potable water supply.
 - 2. Maintain an effective potable water supply system and water testing program.

3. Provide potable water to the residents of the THDWID.
4. Initiate, plan, direct, and coordinate potable water issues and needs as they relate to the THDWID Customers.

D. THDWID Location and Boundaries: The following legal description is given in Maricopa County Order C-91-09-090-M-00, dated January 28, 2009, establishing the THDWID:

A subdivision of Tract "A" of Exchange Survey No. 659, a survey of record in the United States General Land Office and located in the Tonto National Forest and being part of Sections 9, 10, and 15, Township Six North, Range Five East, G. & S. R. B. & M., Maricopa County, Arizona and recorded in Book 93, Map 5 of Maricopa County Records.

- E. Principal Offices: The principal offices of the THDWID shall be designated and located within the county of Maricopa, State of Arizona. The THDWID records are located at 11420 East Blue Wash Road, Cave Creek, AZ 85331. This address shall also be used for all deliveries not involving the U.S. Postal Service (USPS) such as Federal Express or United Parcel Service. The mailing address for USPS items shall be 11228 E. Hohokam Lane, Cave Creek, AZ 85331. The THDWID email address is THDWID.board@gmail.com and the web site is www.TontoHillsWater.org. The voice mail telephone number is 480-595-0128. The emergency telephone number is 480-745-1427.
- F. Mission: The mission of the Tonto Hills Domestic Improvement District is to provide reliable potable water to the residents of Tonto Hills at a reasonable cost.

1.2.2 Board of Directors

- A. Board of Directors: The THDWID is governed by an elected Board of Directors under Title 48, Chapter 6 of the Arizona Revised Statutes.
1. The Board is comprised of five THDWID Members elected by vote of registered electors, authorized to vote in the THDWID.
 2. Election for a member of the Board shall be held in the year that the term for the Board member expires. See **Appendix A** for information on Board history and election timetable.
- B. Terms of Office: The initial Board was appointed by the Maricopa County Board of Supervisors, with future elections to be conducted according to A.R.S. §48-1012 (B). To permit continuity, the first Directors of the Board met and divided themselves by

lot into two classes as nearly equal in number as possible. Directors of the first class serve for a term of four years, and directors of the second class serve for a term of two years. Board members elected after the initial, County-appointed, Board serve 4-year terms.

1. Directors serve without compensation, but may be reimbursed for actual expenses incurred. Compensation may be made for out-of-pocket expenditures by the Board, Clerk, or Superintendent on presentation to the Board of proof of such expenditures. In general, such out-of-pocket expenditures should be limited to no more than \$100.00 unless pertaining to an emergency or unless previously approved by the Board. An emergency includes any condition that poses an imminent threat to the security, quantity, chemical quality, or operation of the Tonto Hills water supply.
- C. Board Vacancies: Any vacancy on the Board shall be filled by the Board according to A.R.S. §48-1012. Vacancies on the Board caused by any event other than the termination of the normal four-year term shall be filled by appointment by a majority vote of the Board. Each appointed member shall complete the term of the Board vacancy to which that member was appointed.
- D. Officers: The officers of the Board shall be elected annually by a majority vote of the Board and shall consist of the Chairperson, a Treasurer, a Secretary, and any other officers that the Board may decide would enhance the effectiveness of the Board's actions and responsibilities. Any officer elected by the Board may be replaced as an officer, at any time, by the Board by a majority vote of the entire Board at a properly published and agendized meeting.
1. The Board shall formulate financial policies, delegate administration of the financial policies to the Treasurer and review operations and activities. The Clerk shall maintain current job descriptions for all Board members and contract workers including financial duties and responsibilities. Financial responsibilities must be separated so that no one Board member or contract worker has sole responsibility over cash receipts, disbursements, payroll, reconciliation of bank accounts, etc. These policies and procedures will be reviewed annually by the THDWID Board. All officers shall notify the Board of violations or potential violations of the THDWID Policies and Procedures.
 2. The Chairperson shall:
 - a. Preside over all Board meetings and, if not able to attend, provide or arrange for another Board member to preside at each meeting.
 - b. Preside over annual meeting of THDWID members.
 - c. Prepare or approve monthly meeting agenda items for agenda preparation and posting by the Clerk.

- d. Be the Board's spokesperson.
 - e. Establish and conduct contact/liaison with THDWID's Maricopa County Supervisor, County Assessor, and County Treasurer, City of Scottsdale, Central Arizona Project (CAP), Rural Water Association of Arizona, and Arizona Small Utilities Association, or assign these functions to other Board members as appropriate. The Chairman is the primary person authorized to deal with outside attorneys that the BOD may choose to employ on an as needed basis.
 - f. Annually recommend the amount for water order from CAP and COS. Recommend the amount to be banked. Obtain Board approval.
 - g. Provide and oversee long-range planning and recommendations to the Board
 - h. Maintain and update the Board Action Calendar: a listing of actions, responsibilities and timings of Board activities.
 - i. Coordinate bi-annual Operations review.
 - j. Annually assign responsibilities and delegate tasks from time to time as necessary to other Board members and/or selected advisors. See item 5 in this section.
3. The Treasurer shall:
- a. Ensure adherence to all financial policies and procedures.
 - b. Present financial reports at the annual meeting of members.
 - c. Oversee all financial and inventory audits/reviews.
 - d. Oversee proper maintenance of the District's general ledger.
 - e. Oversee the maintenance of the THDWID checking and investment accounts, including review of all statements, reconciliation of check register, and take necessary actions in the best interests of the THDWID, with Board approval.
 - f. Transfer funds as necessary between checking account and investment/savings accounts or other THDWID accounts that may be included in the THDWID investment portfolio
 - g. Verify and submit payroll. Oversee the relationship with the payroll processor.
 - h. Oversee the relationship with the Workmen's Compensation insurer.
 - i. Provide risk management oversight.
 - j. Chair any finance committees.
 - k. Provide financial information to the public.

- l. Oversee or prepare and provide to Board monthly “Treasurer’s” reports summarizing account balances, income/expenses, and status of budget items. Provide aging reports for water bill and assessment payments.
 - m. Oversee receipt of funds to be deposited and make deposits.
 - n. Review all incoming vendor invoices, obtain payment approval when necessary from responsible Board members, and recommend payment or non-payment to the Board as necessary.
 - o. Oversee all financing arrangements, including borrowings and assessments due from members.
 - p. Oversee disbursement checks being prepared for signing, co-sign and obtain signatures of the necessary number of designated Board members, and mail payments (or give to Clerk to mail). Ensure checks greater than \$ 1,000 are co-signed other than those for standard bills like the monthly City of Scottsdale water bill and sales tax payments.
 - q. Review bank statements reconciliation monthly.
 - r. Provide Clerk with a copy of check register and bank/investment statements to file with records on an annual basis.
 - s. Prepare, with the Board, a draft annual budget and submit to Board for approval.
 - t. Prepare year-end Profit and Loss projections vs. budget on a quarterly basis.
 - u. Recommend to the Board investments of monies in excess of those needed for day-to-day operations.
 - v. Supervise the work of the accounting firm and address all issues stemming from accounting firm activities, including billings, delinquent accounts, water usage accounting, etc.
 - w. Oversee, with the Board and Superintendent, collections on overdue Customer payments, ordering of water service shut-off, and collection of Assessment payments, if applicable.
 - x. Oversee the auction process in the collection of THDWID assessments.
 - y. Ensure filing of all tax returns, audits and other financial/regulatory filing requirements with the appropriate government entities.
 - z. Handle all member requests for deferred payment arrangements in accordance with THDWID Policies and Procedures.
 - aa. Handle all customer billing disputes.
4. The Secretary shall:
 - a. Oversee the duties of the Clerk.

- b. Tally surveys; prepare results and reports.
 - c. Oversee organization, management, maintenance, storage, and backup of all THDWID files, records, and documents.
 - d. Oversee the taking of the minutes at all Board meetings, sending out meeting announcements, distributing copies of minutes and the agenda to each Board member, and assuring information is available to Board members and the public.
 - e. Ensure that the Board responds to all public inquiries or contacts in a timely manner (including drafting replies, getting Board approval, etc.), including delegating response preparation to appropriate Board member or staff and ensuring that the response is completed and transmitted.
 - f. Oversee communications to THDWID Members and the public via the THDWID web site, community mailboxes, bulletin board, email, U.S. Mail, and legal notices in newspapers.
 - g. Periodically, review the web site for accuracy and currency. Oversee updates.
 - h. Annually, review the Policies and Procedures for accuracy and currency. Oversee updates.
5. All Board members shall assist the officers and may be designated to assist in implementation of the assigned responsibilities of officers and/or may be assigned special projects. Annually, the Chair will assign individual Board members the following responsibilities:
- a. Superintendent liaison including:
 - i. Provide principal Board oversight of and maintain frequent communication with Superintendent.
 - ii. Contractor oversight; including ensuring Contractors comply with the requirements specified in THDWID Policies and Procedures including insurance, EEO, and OSHA requirements. Ensuring Contractors adhere to contract terms.
 - iii. With the Superintendent, make reports to the Board on water system status and give recommendations for technical or administration issues needing to be addressed.
 - iv. With the Superintendent, oversee preventative maintenance, and repairs and replacement.
 - v. Work with the Superintendent to establish redundant knowledge of the water system.
 - vi. Ensure Superintendent is taking actions on time as enumerated in the Superintendent duties section.

- vii. With the Superintendent maintain spare parts inventory.
- viii. Oversee purchasing.
- ix. Work with the Superintendent to train Board members and others in emergency procedures.
- b. Check bank statements and invoices quarterly and compare to financial reports.
- c. Oversee Certified Operator's water quality inspections/reports.
- d. Complete other tasks as assigned:
 - i. Serve as web master.
 - ii. Research availability of grants.
 - iii. Coordinate water conservation activities.
 - iv. Handle all non-billing customer disputes.
 - v. Periodically review and re-bid insurance coverage.

Note: See the **Appendix B** for information on the Board Action Calendar. The Code of Conduct is given in **Appendix R**.

- E. Board Committees: The Board may from time to time appoint, by majority vote, such committees as the Board may deem advisable, and such committees shall have such authority and shall perform such duties as may be prescribed by the Board. Members of such committees shall serve until completion of their duties and dismissal by the Board. The Board may dissolve such committees at any time by a majority vote. Members of such committees who are not Board members shall be covered by the THDWID insurance.

1.2.3 Board Authorities

- A. Amendments: The Board shall have the power to alter or amend these Policies and Procedures at any time by presenting and approving proposed amendments at a Board meeting. All changes thereto must be adopted by the Board and will be set forth in the meeting minutes.
- B. General Duties and Functions of the Board: It shall be the duty of the Board to direct and manage all matters pertaining to the water system of the THDWID in conformity with these Policies and Procedures and all applicable Federal, state, county and local laws. The Board will have general supervision over the THDWID's water system, all real and personal property connected with the THDWID's physical infrastructure, including but not limited to pipelines, standpipes, pumps, valves, storage tanks, wells

and all other physical attributes of the water system, buildings and office equipment used by the THDWID, motor vehicles used by THDWID employees, and such other physical and material items that are used in the daily management and operation of the water system. In addition to the foregoing, the Board will have general supervision over all employees and agents of the THDWID, and will have the authority to enter into contracts with suppliers, insurance carriers, general contractors, laborers, legal counsel, accountants and any other third parties who the Board deems necessary for the continued operation and benefit of the THDWID.

- C. Other Authorities: In addition to the functions and duties listed above, the Board will have the authority to establish or amend the Fee Schedule, to establish construction specifications for Authorized Water Service Connections, and to perform or establish such other duties, functions, rules, regulations or other matters specifically authorized in these Policies and Procedures and in the Arizona Revised Statutes; including, but not limited to, those powers listed in ARS 48-909.
- D. Other Sales of Water: The THDWID may sell water to commercial contractors, the Forest Service, or any other person or entity that desires to buy surplus water from the THDWID at such fees or purchase prices determined by the THDWID Board of Directors.
- E. Water Banking: The THDWID may bank water with Groundwater Savings Facilities (GSFs), Underground Storage Facilities (USFs), and conservation districts. The Board may accumulate and sell Long Term Storage Credits. The THDWID Board will determine the fees and purchase prices.

1.2.4 Board Records

- A. Recordation: The THDWID will maintain its accounting books and records in accordance with generally accepted governmental accounting principles. Notice of Policies and Procedures adopted by the Board and any subsequent amendments will be made to the THDWID Members via the same method that meeting notices are given.
- B. Audit or Review: The books and records of the THDWID shall be audited or reviewed if required by the Arizona Revised Statutes or, if a Federal loan is outstanding, by the Federal Single Audit requirements.
- C. Public Records: The THDWID will comply with the public records laws, including the adoption of a lawful records retention schedule.

1.2.5 Board Meetings

- A. Quorum: Except as otherwise required by law, a quorum will be a majority of the total number of Board members. To conduct business (take action), a quorum must be present. Unless otherwise required by law to the contrary, a simple majority of those present will constitute official action of the Board.

- B. Regular meetings: All Board meetings will be held in conformance with Arizona's Open Meeting Law, A.R.S. §38-431 to 38-431.09. Regular meetings of the Board will be held at times and places determined by the Board. Meetings will generally be held on a monthly basis. Public notice and an agenda will be posted a minimum of 24 hours prior to the regular meeting convening, or as may be provided by the Arizona Open Meeting Law. Notices will normally be posted on the web site at www.TontoHillsWater.org and at the bulletin board at the community mailboxes. No items will be discussed and no action will take place on items not included on the agenda, except for emergency situations.

Under emergency situations requiring a decision during a regular meeting on an item not listed on the agenda, public notice of such action will be posted not less than 24 hours after that meeting.

- C. Special Meetings: Special meetings may be called by the Chairperson and a public notice will be posted at least 24 hours prior to convening the special meeting, or as may be provided by the Arizona Open Meeting Law.

- D. Acting Chairperson: For the sole purpose of calling and chairing regular or special board meetings, other Board officers may serve as Acting Chairperson when the elected Chairperson is not available to do so.

1.2.6 Other Provisions

- A. Voting Qualifications: THDWID Members will have the right to vote in THDWID elections including, but not limited to, elections of the Board and such other matters subject to public vote as set forth in the Arizona Revised Statutes.

- B. Compensation for Paid Positions: Compensation for paid employees will be at negotiated rates and in accordance with Arizona and Federal laws. Payroll processing, tracking and attendant functions (e.g., tax filings) will be handled by a designated payroll processor. The Employee Handbook is given in **Appendix P**.

- C. Items Not Covered by Policies and Procedures: Any incident or set of circumstances that arises that is not covered by these Policies and Procedures will be acted on by the THDWID Board.
- D. Variations and Waivers: Variation or waivers from the terms and conditions of these Policies and Procedures will be permitted only on the written application of an affected party to the Board, setting forth the circumstances whereby the public interest requires such variation. The Board may require an application for such variation be presented in public hearing.
- E. Severability: If any section, paragraph, subdivision, sentence, clause or phrase of these Policies and Procedures for any reason is held to be illegal or unenforceable, the remainder of the Policies and Procedures shall continue in full force and effect, and the section, paragraph, subdivision, sentence, clause or phrase held to be illegal or unenforceable shall be automatically amended to most closely approximate the original section, paragraph, subdivision, sentence, clause or phrase on terms that are legal and enforceable, and the court or other adjudicating authority shall make such amendment accordingly.
- F. Consistency with Arizona Revised Statutes: The Arizona Revised Statutes will in all respects be considered superior to these Policies and Procedures, with any inconsistency to be resolved in favor of such statutes and with these Policies and Procedures to be deemed automatically amended to eliminate any inconsistency that may exist. Amendments will be made as necessary to these Policies and Procedures to keep them consistent with the Arizona Revised Statutes.

1.2.7 Formation Contracts

As part of the formation of the THDWID, the Board of Directors entered into agreements with various agencies. Following are these agencies and the nature of the relationship. The agreements are available at the THDWID office.

- A. Water Infrastructure and Finance Authority of Arizona (WIFA): WIFA is an independent agency of the State of Arizona and is authorized to finance the construction, rehabilitation, and/or improvement of drinking water, wastewater, reclamation and other water facilities/projects.
 - 1. Provisions of the contract include:
 - a. THDWID will repay the borrowed principal of \$497,000, which was used for the purchase of THUC assets and to make needed improvements to the system.

- b. The interest rate is 3.383%.
 - c. The loan term is twenty years.
 - d. The loan is to be repaid in semi-annual payments beginning 7/1/11. The final payment is due 7/1/30.
2. Following are selected loan agreement covenants and conditions
- a. Conduct an annual loan review
 - b. Submit any required audit reports, including regulatory compliance review
 - c. Notify WIFA of a change in any key personnel
 - d. Notify WIFA of any material adverse change; such as default and litigation.
 - e. Ensure repayment is limited to funds collected from assessments
 - f. Maintain Federal Income Tax covenants in a way to insure WIFA bonds remain tax exempt
 - g. Operate and maintain the water system in accordance with prudent utility practice
 - h. Comply with County, State and Federal laws
- B. Central Arizona Water Conservation District (CAWCD): CAWCD operates the Central Arizona Project (CAP). CAP provides the water from the Colorado River that THDWID uses. Key contract provisions include:
1. The contract term is 100 years from November 30, 2010.
 2. THDWID has a 71 acre-foot annual allocation
 3. THDWID conveyance system shall have linings that do not allow excessive losses as judged by the Contracting Officer.
 4. THDWID generally cannot pump groundwater within the district for use outside the district.
 5. On or before October 1, THDWID must submit a written order for water delivery for each month of the following year, together with preliminary estimate of water needed during the succeeding two years.
 6. No month's delivery can exceed eleven percent of THDWID's maximum allocation of 71 acre feet.
 7. THDWID must comply with all applicable water and air pollution regulations.
 8. THDWID will develop and implement an effective water conservation program. At five-year intervals, THDWID shall re-submit the plan to CAWCD for review and approval. The program shall contain goals, appropriate water conservation measures and time schedules for meeting the water conservation objectives.

9. Payments must be made according to the CAWCD schedules.
 10. THDWID will maintain and establish books and records pertaining to its financial transactions, land use, water supply and changes of Project works. Reports will be furnished to CAWCD upon request.
- C. City of Scottsdale (COS): COS treats and delivers the CAP water to the point of delivery into THDWID water system tank. Key provisions of the agreement are:
1. The initial term of the agreement is 100 years from December 17, 2010.
 2. THDWID must maintain a 70 gallons per minute orifice plate and backflow preventer at the point of delivery to its water system to limit instantaneous flow rate from the COS distribution system.
 4. On or before September 1 each year, THDWID must notify COS of the amount of water it plans to request from CAWCD.
 5. Periodically, but no more frequently than once a year, THDWID may increase its Purchased Capacity by paying COS the then applicable Water Development and Administrative Fees. THDWID may not increase its Purchased Capacity to an amount in excess of its allocation. See the Appendix Exhibits C-1 and C-2 in the COS contract for details.
 6. THDWID shall pay additional Water Development and Administrative Fees in any year it takes deliveries of water that exceed its Purchased Capacity by more than ten percent. See Sections 5.2.5.1 to 5.2.5.3 and Exhibits C-1 and C-2 in the COS contract for details.
 7. In the absence of COS's written consent, under no circumstance will THDWID be entitled to, nor will it receive, water in an amount or at a rate greater than: (1) 70 gallons per minute; (2) 3,000,000 gallons per month; and (3) the lesser of its Allocation or Purchased Capacity.
 8. In the event that THDWID draws Treated Water in excess of the above limits, THDWID will pay for the excess at three times the normal rate. COS reserves the right to terminate the agreement.
 9. COS will charge THDWID a surcharge of ten percent and a lift charge of twenty percent (to compensate Scottsdale for lifting the water from the treatment plant to the THDWID point of delivery) above the rate charged to COS residential users.
 10. COS will issue monthly invoices for the quantity of water transported based on the metering device at the THDWID point of delivery. THDWID will pay each invoice in accordance with Section 49-52 of the Scottsdale Revised Statutes. THDWID will have no right to treatment and transportation during any period THDWID is arrears in payment.

11. THDWID must maintain and test the RPP (Reduced Pressure Principal) backflow device at the outflow of the COS meter at the point of delivery in accordance with Scottsdale Revised code Chapter 49, Article 2, Division 3.

1.2.8 Supplemental Contracts

THDWID has entered into an agreement with the Roosevelt Water Conservation District (RWCD) Groundwater Savings Facility in order to accrue an asset of Long Term Storage Credits. This contract allows THDWID to utilize all of its 71-AF/yr CAP water allocation each year instead of losing the unused portion. Long Term Storage Credits can be sold within the Phoenix Active Management Area or transferred to City of Scottsdale in lieu of CAP deliveries so that the City can continue to supply THDWID water even when there are disruptions of the CAP supply. Key elements of the agreement are as follows:

- A. THDWID obtained a Water Storage Permit No. 73-545695.1700 from the Arizona Department of Water Resources (ADWR), effective August 14, 2013, which permits THDWID to have CAP deliver up to 71 AF/yr to RWCD. The RWCD Groundwater Savings Facility uses the water for irrigation in lieu of pumping groundwater under its Permit No. 72-545695.0005 on a gallon-for-gallon basis. Expiration of the THDWID permit is tied to the expiration of the RWCD permit.
- B. By March 31, THDWID must submit an annual data report to the ADWR Recharge, Assured & Adequate Water Supply Program to account for the water stored during the preceding calendar year.
- C. Effective date of the agreement with RWCD is September 18, 2013. The agreement terminates with the expiration of the RWCD permit on December 31, 2020, unless it is extended by both parties in writing and the RWCD permit is renewed.
- D. Each year, THDWID must determine if it will have water delivered by CAP to RWCD during the following year and must notify RWCD by August 1 of the quantity in whole acre-feet.
- E. RWCD will notify THDWID by September 15 of the quantity in whole acre-feet it agrees to receive, and by September 20 will provide THDWID with a copy of the monthly delivery schedule showing when it will take the water.
- F. By September 30, THDWID must submit an order and the delivery schedule to the Central Arizona Water Conservation District (CAWCD) for the CAP water to be delivered to RWCD the following year.

- G. THDWID can reduce or discontinue deliveries of its CAP water to RWCD upon providing written notice 15 days in advance if: A) CAWCD notifies THDWID that it will no longer award Long Term Storage Credits for water delivered to RWCD; or B) CAWCD notifies THDWID that the amount of CAP water made available to THDWID has been or will be reduced.
- H. RWCD shall pay THDWID \$20 for each acre-foot of THDWID water delivered to RWCD. Payment for water delivered during a month shall be made by the 20th day of the following month. RWCD shall provide THDWID with a copy of its monthly “CAP Water Use Accounting Report” and a transmittal letter documenting the calculation of the monthly RWCD payments.
- I. Both the THDWID Water Storage Permit and the agreement with RWCD should be reviewed for additional stipulations in anticipation of sale or transfer of THDWID’s Long Term Storage Credits or to learn more about other less consequential elements of these documents.

1.3 DEFINITIONS

In this document, unless otherwise indicated, the following definitions shall apply:

Abusive Water Use: Usage of water that is provided by the THDWID for a Customer outside the parcel(s) owned by that Customer, or abusive use on a Customer’s parcel. Abusive Water Use is use in violation of the restriction outline in Stages 3 and 4 of the Water Conservation Plan. See **Appendix Q**.

Accidental Excessive Usage: Usage of water as a result of a break or non-recurring leak on the Customer’s property resulting in an abnormal amount of water usage.

Accounting Firm: A firm hired by the THDWID to perform accounting, billing, and tax reporting functions as designated by the Treasurer.

Active Account: Any billing account maintained by the THDWID for a Customer that is currently paid “up to date” and is up to date regarding any assessment is considered active. “Up to date” is defined as less than 30 days past due.

Applicant: A person requesting the THDWID to supply Water Service. The person requesting service must be a parcel owner within the THDWID boundaries.

Application for Water Service: A formal written request using the appropriate form and providing the required documentation to the THDWID for Water Service, as distinguished from an inquiry as to the availability or charges for such service.

Authorized Water Service Connection: A connection of the THDWID’s water lines and water delivery system to a Parcel that is constructed in compliance with these Policies

and Procedures and for which an Application for Water Service has been approved and a Customer account is Active. The Authorized Water Service Connection includes the pipes, valves, meter and other equipment and installations required for such water delivery service, excluding any pipes, valves, etc. on the Customer side of the water meter.

Backflow: A condition that would allow contaminated water to enter the THDWID water distribution system via the pipe connection to a THDWID Member's parcel or other connection.

Billing Month: The period between any two regular readings of the THDWID's meters at approximately calendar month intervals.

Billing Period: The time interval between two consecutive meter readings that are taken for billing purposes.

Board: The Board of Directors of the THDWID.

Certified Operator: A company or individual with which THDWID contracts to provide water system management, including water compliance sampling and laboratory analysis for reports, and for recommendations on modification of the system to maintain water quality and any other testing required by a regulatory agency.

Clerk: A paid position appointed by the Board with duties including, but not limited to: 1) maintenance of THDWID records, 2) management of incoming and outgoing correspondence, 3) posting of notices of public meetings, 4) certification of Board documents, and 4) taking of minutes at Board meetings and any other THDWID meetings.

Construction Water: Water Service used for non-potable, construction related activities such as dust control, excavation drilling, initial filling of swimming pools, etc. and including water for home and out-building construction and remodeling. Construction Water is not considered abusive or excessive use unless it extends to areas other than the Customer's parcel. Construction Water use can be restricted. See the Conservation Plan in **Appendix Q**. Filling of water trucks or tanks at a Customer's parcel for use outside of the parcel is strictly prohibited.

Contribution in Aid of Construction: Funds provided to the THDWID by the Applicant under the terms of a main extension agreement and/or service connection charge, which are not refundable.

Critical Water Condition: A Critical Water Condition shall be determined by the THDWID Board and shall include, but not be limited to, water supply conditions affected by drought, high fire threat, delivery problems, and demand greater than the THDWID's water delivery capability, and shall result in water use restrictions.

Cross-Connection: A connection within the Customer's system that would allow contaminated water to enter the Customer's potable water system. Such a connection is not allowed.

Customer: The THDWID parcel owner in whose name Water Service is rendered. If a person other than the customer is residing at the property, that person may be billed for the water, but payment responsibility remains with the parcel owner.

Customer Base Rate: The monthly amount the Customers shall pay to the THDWID for the availability of Water Service, excluding any water used, as specified in the THDWID's Fee Schedule. The Base Rate is also referred to as "monthly usage charge".

Director: A duly qualified and elected member of the THDWID Board of Directors. This person is also referred to as a Board Member.

Distribution Main: A water main of the THDWID water distribution system from which service connections shall be extended to Customers.

District Engineer: The District Engineer shall do the surveying and other engineering work necessary under ARS 48-951. This work includes preparing plans, specifications, and estimates, and signing certificates.

Excessive Use: Excessive use is water use far in excess of the median use, as determined solely by the THDWID Board, of like properties considering such factors as pools, water features, landscaping drip systems, etc.

Fee: Any charge included in the Fee Schedule levied by the Board of Directors. Said fees are published in the Policies and Procedures. Changes to the fees shall be posted and published in the Legal Notices in the local newspaper and approved at a public fee hearing.

Infrastructure Fee: A one-time fee charged to each new water service established by the THDWID to compensate for the costs associated with providing water infrastructure and water from off-site facilities. At this time, the off-site facilities comprise the City of Scottsdale treatment and delivery system and the Central Arizona Project. This fee can only be charged once to each un-subdivided parcel serving one single-family household or commercial facility within the THDWID. This fee is established by the THDWID and collected by the THDWID from the Parcel owner prior to the acceptance of an Application for Water Service.

Meter: The instrument owned and provided by the THDWID for measuring and indicating or recording the volume of water that has passed through to a Customer's Parcel.

Meter Reader: A contractor supervised by the Superintendent whose duties include reading the meters.

Meter Installation Fees: Non-refundable fees charged to the Customer for installation of the Water Service line from the main to Customer's Parcel and the meter provided by the THDWID.

Meter Tampering: Any situation where a meter has been altered by actions other than those of a properly authorized THDWID representative.

Parcel: A Parcel shall include real property that lies within the legal boundaries of the THDWID.

Parcel Ownership: Parcel ownership shall be determined according to the most recent THDWID tax role, updated per the Maricopa County assessor's office each calendar year, and any purchases/sales identified throughout the year. Parcels shall include any developed or undeveloped lots within the THDWID boundaries.

Payroll Processor: A payroll processor is a company hired by the Board to process payroll submission, issue checks, pay payroll related taxes, track hours, track sick pay, etc.

Permanent Service: Water Service that is of a permanent and established character.

Point of Delivery/Service Connection: The point where Customers are connected to the THDWID's pipelines or at the outlet side of a THDWID meter.

Fee Schedule: A list of all fees, rates, and charges established by the THDWID and included in the Policies and Procedures. The Fee Schedule shall be posted and published in accordance with A.R.S 48-910 and amendments thereto, and approved at a public fee hearing.

Security Deposit: A refundable amount used to secure an account against losses due to non-payment of water bills.

Service Establishment Fee: The fee intended to subsidize the cost of establishing a new account. This fee is non-refundable.

Service Line: A water line that transports water from the THDWID main pipelines to the Customer's point of delivery.

Service Re-Connect Fee: The fee that shall be paid by the Customer prior to re-establishment of Water Service each time the water is disconnected for non-payment by Customer request or whenever Service is discontinued for failure otherwise to comply with the THDWID's rules.

Superintendent: A paid position appointed by the Board with duties including, but not limited to: 1) preparing and submitting reports on water quality and water usage required by regulatory agencies, 2) development of certain parts of the assessment program, maintaining assessment records, notices and collection of assessments, including the sale of delinquent assessments at auction, 3) contracting and supervision of water system improvements, maintenance, and repairs, 4) overseeing and/or executing daily monitoring of the water system, oversight of activities of Certified Operator and Meter Reader, 5) response to emergency calls and reports of leaks, and 6) monitoring of Capital Improvements to the water system.

THDWID Member(s): A parcel owner whose parcel was assessed by the THDWID. Note: there were a few parcels, such as parking lot parcels and THDWID owned property, that were not assessed.

Unauthorized Water Service Connection: Any connection to THDWID pipelines for which: 1) the THDWID has not approved an Application for Water Service, 2) no record of account exists in the THDWID's records, and/or 3) Water Service has been disconnected and has not been reconnected by authorized THDWID personnel.

Water Rate or Commodity Rate: The unit of cost per 1,000 gallons billed on a monthly basis, as separate from the “monthly usage charge” or “Customer base rate”.

Water Service Use: Use of potable fresh water provided by the THDWID. Use may be continuous, intermittent, or seasonal in nature. Re-connect fees may apply to all but continuous Water Service.

2.0 ADMINISTRATIVE PROCEDURES

2.1 ESTABLISHMENT OF SERVICE

The following procedures apply to the Establishment of Service (see **Appendix C** for the package for Application for Water Service):

- A. Where permitted by law, the THDWID will, at a minimum, obtain the following information from each new Application for Water Service:
 1. For Office Use Only: date, account number, lot number, meter read, and meter size.
 2. Name or names of Applicant(s) and positive identification.
 3. Service address, phone number, and billing address, if different from service address.
 4. Number of individuals in household, start date requested for service, and intended uses of the water.
 5. E-mail address.
- B. Agreement portion of application must be signed by Owner, or authorized agent with proof of authorization, and returned with funds.
- C. The THDWID requires a new Applicant for Water Service to produce proof of identity acceptable to the THDWID, and sign the THDWID's application form. The type of identification is noted on the application. The signature attests that the applicant is the parcel owner.
- D. The total fees due, as shown on the THDWID Application for Water Service, are required to be paid at the time of application.
- E. Where service is requested for a parcel owned by two or more individuals, the THDWID shall have the right to collect the full amount owed to the THDWID from any one or all of the parcel owners.
- F. A Parcel owner shall make application to be a Customer for service, in person, at the designated location, or by first-class mail to the THDWID mailing address, or by e-mail.
- G. THDWID's Application for Water Service contains a binding agreement to abide by the conditions and requirements of a THDWID Customer and pay all required fees.

All connections to the THDWID's water system shall be made pursuant to any rules, regulations, or resolutions pertaining to the payment of connection fees. Further, all connections shall be made only by the THDWID contractor or employee and in compliance with any specifications adopted by the THDWID and the Uniform Plumbing Code.

- H. The Water Service Application will include the Fee Schedule in force at the time of application, a listing of Water Customer Responsibilities, the New Build/Remodel Water Considerations, and the description of the THDWID Water Supply and Demand.
- I. The Water Service Application will include the web site address where a copy of the Policies and Procedures are available.
- J. Submittal of a signed application and payment of start-up fees signifies the Parcel owner's agreement to abide by the provisions of the Policies and Procedures.
- K. After a Parcel owner has complied with the procedures listed above and all of the THDWID's installation charges, service charges, security deposit, infrastructure fee, and any other requirements that may apply have been paid, and owner is in compliance with the construction specifications set forth in these Policies and Procedures; in particular those that related to backflow prevention and cross connection, and on approval by the THDWID Superintendent of an Application for Water Service, the THDWID will schedule that parcel for a service connection and/or establishment. The THDWID will then provide an "Authorized Water Service Connection".
- L. In the event the Superintendent decides not to approve the application, he will refer the matter to the THDWID Board Chairman.
- M. The THDWID Board and Superintendent approval of an application for service will not be unreasonably withheld or delayed. On approval of an application for service, the THDWID and the Parcel owner will cooperate with one another in constructing an Authorized Water Service Connection. Establishment of service will be scheduled for completion within ten working days (excluding holidays) of the date the Customer has been accepted for service, unless this period is extended by the THDWID or Customer, or weather conditions do not permit.

2.2 PROVISION OF SERVICE

An Establishment of service shall be made only by the THDWID under a THDWID contract and with compliance to the following provisions:

- A. Establishment of service shall be made only when the Customer's facilities are ready to receive water and are accepted by the THDWID and the Tonto Hills Architectural Control Committee, and the THDWID needs only to install or read a meter, or turn the service on. The THDWID Superintendent will verify that required shut off valves and backflow prevention devices are in place. Refer to "Construction Standards" under the section on Operational Procedures, and the section on Backflow Prevention.
- B. Customers are responsible for reviewing and being familiar with requirements and recommendations in the THDWID New Build/Remodel Water Considerations included with the Application for Water Service package, which are incorporated herein by reference, and all revisions thereto published and available on the THDWID web site. *All pools must be equipped with pool covers. Negative edge pools must be equipped with automatic pool covers.*
- C. The THDWID will not turn on water service to a property that is unoccupied, unless the home is under construction and the construction supervisor is present. The Customer or a Customer's representative must be available at the property to ensure that uncontrolled leaks or flooding does not occur when water service begins.
- D. The THDWID Superintendent can provide building contractors access to water for construction purposes at designated standpipes in the system, if construction requires higher flow rates than those achievable through the property water meter. The Superintendent will ensure water use accounting at the standpipes using a temporary meter.
- E. All THDWID Members requesting connections on their Parcels to the THDWID's water system shall grant to the THDWID all easements and rights-of-way required by the THDWID to provide water service to, across, or on the Parcel for which the connection is being sought. Any failure to grant adequate easement and right-of-way shall be grounds for the THDWID to refuse connection and/or service to the requesting THDWID Member.
- F. After initial installations and improvements are complete, all THDWID Members agree to give THDWID representatives access across or on the Parcel for any legitimate THDWID business.
- G. Applicants for service shall be responsible for the cost of installing all piping from the meter outlet. It shall be unlawful for any person or entity to hook up to the water line or lines of any portion of the THDWID's water system unless and until the THDWID Superintendent has approved the application for service submitted by said person or entity. The THDWID may install its meter in the utility right-of-way along the roadside and will not be responsible for obtaining easements for private water lines.

- H. Where the meter or service line location on the Customer's Parcel is changed at the request of the Customer or due to alterations on the Customer's premises, the Customer shall provide and have installed at Customer's expense all piping necessary for relocating the meters; and the THDWID may charge a fee for moving the meter and/or service line.
- I. The Customer's water lines or piping shall be installed in such a manner as to prevent cross-connection or backflow. Pressure vacuum breakers must be installed on all hose bibs used to fill water reservoirs, such as horse troughs, pools, etc., to prevent backflow. Residential backflow prevention devices shall be installed wherever cross-connections pose a threat to the THDWID water system, in accordance with the THDWID Policies and Procedures. THDWID will install a check valve with new water meters as a precaution; however, this action does not relieve Customer from any backflow prevention requirements for its Parcel. THDWID may, at its sole discretion, install check valves at existing water meters. ***A Reduced Pressure Principle (RP) Backflow Prevention Assembly is mandatory for all Parcels zoned commercial*** (see section on Backflow Prevention).
- J. THDWID and its authorized employees or agents shall have the right to enter the Parcel for purposes of verifying compliance with all THDWID requirements.
- K. Whenever the THDWID discovers that a Customer, or his agent, is performing work or has constructed facilities adjacent to or within an easement or right-of-way and such work, construction or facility poses a hazard or violates federal, state or local laws, ordinances, statutes, rules or regulations, or significantly interferes with the THDWID's access to equipment, meters, valves or lines, the THDWID will notify the Customer, or his agent, and may take whatever actions are necessary to eliminate the hazard, obstruction, or violation at the Customer's expense.
- L. The THDWID may discontinue or suspend water service to a Customer without notice for reasons outlined in 2.5.1.
- M. The THDWID may suspend the service of, or refuse service to, any Customer, its guests, tenants, employees or other authorized parties for reasons outlined in 2.5.2.

2.2.1 Other Customer Responsibilities

In addition to those responsibilities listed above in the Establishment of Service and Provision of Service sections, following is a listing of some, but not all, Customer responsibilities.

- A. Each Customer shall be responsible for paying all fees, rates, and charges invoiced by THDWID. This responsibility cannot be assigned to renters. This includes water used by fire departments to suppress fires on the parcel.
- B. Each Customer's piping and apparatus shall be installed and maintained by the Customer, at the Customer's sole cost and expense, in a safe and efficient manner and in accordance with the THDWID Policies and Procedures and in full compliance with the regulations of the Arizona State Health Department, Arizona Department of Environmental Quality, Maricopa County, and the Uniform Plumbing Code.
- C. Each Customer shall be responsible for maintaining all facilities on the Customer's side of the point of delivery in a safe and efficient manner and in accordance with the rules of properly constituted authority.
- D. If each Customer's piping is so arranged that the THDWID is called upon to install a second meter, this additional service to the Customer's parcel will be considered as a separate and individual billing account.
- E. Each Customer shall be responsible for safeguarding all THDWID property installed in, under, or on the Customer's premises for the purpose of supplying water to that Customer, and shall permit access to it by the authorized representatives of THDWID. Duly authorized employees or agents of THDWID shall have access at all reasonable hours to the parcel for the purpose of installing or removing the THDWID's property, inspecting piping, or for any other purpose in connection with the THDWID's services and facilities.
- F. As part of the responsibility to provide proper access, each Customer shall keep a sufficient area around the water meter clear of vegetation or other objects that may hinder the meter reader from easily and safely accessing Customer's meter. If proper access is not provided by Customer within 30 days of being notified by THDWID of improper access, THDWID reserves the right to remove vegetation or other objects hindering said access and to recover costs incurred for such actions from the Customer.
- G. Each Customer shall exercise all reasonable care to prevent loss or damage to THDWID property, excluding ordinary wear and tear. In the event that any loss or damage to the property of the THDWID or any accident or injury to persons or property is caused by or results from the negligence or wrongful act of the Customer, its agents, employees, guests, tenants, or other representatives, the cost of necessary repairs or replacements shall be paid by the Customer to the THDWID and any liability otherwise resulting shall be assumed by the Customer.
- H. Each Customer shall be responsible for payment for any equipment damage and penalties resulting from unauthorized breaking of seals and/or from interfering, tampering, vandalizing, or bypassing the THDWID meter.

- I. Each Customer shall be responsible for notifying the THDWID of any failure of the THDWID's equipment.
- J. During Critical Water Conditions, as determined by the THDWID Board or other appropriate governmental authority, the THDWID may restrict water use and the Customer shall use water only for those purposes specified by the THDWID. The Customer shall use water only for those purposes specified for the water restriction levels set forth in the Water Conservation Plan. Critical Water Conditions are Stages 3 and 4. See **Appendix Q**.
- K. Each Customer is responsible for being aware of information provided by the THDWID regarding local water conditions and water restrictions. Disregard for water restrictions by the Customer, its guests, tenants, employees, or other authorized parties shall be sufficient cause for THDWID's refusal or discontinuance of service to the parcel.
- L. Each Customer shall be responsible to ensure that water furnished by the THDWID shall be used only within the boundaries of a Customer's parcel, or within the Tonto Hills community for community services, and shall not be resold or given to any other person. Obviously, small quantities of water for personal use may be used or given to other people away from the Customer's parcel. Any Abusive Water Use as defined in the Policies and Procedures by any Customer is strictly prohibited. Abusive Water Use shall be sufficient cause for the THDWID's refusal or discontinuance of service to the parcel.
- M. Each Customer is responsible to report any water leaks immediately to the THDWID Superintendent.
- N. Customers seeking to have their water service temporarily disconnected (turned off) for construction maintenance or repair purposes may contact the THDWID for this service. Turn-on/turn-off fees may be charged to Customers that have a temporary disconnect and re-connect.
- O. Complaints must be filed at the THDWID principal office by setting forth the complaint in a written statement by the Customer or its authorized representative or agent. The complaint will be answered by the THDWID or its authorized representatives, including its legal counsel if deemed necessary by the Board, as soon as possible within a maximum of sixty-five (65) days from the THDWID's receipt of the complaint.
- P. The Customer and its agents, family, or tenants shall not allow any pollutants and contaminants to enter the public potable water system from the point of delivery to the public potable water system. The Customer, at its own expense, shall install, operate, test, and maintain approved backflow preventive assemblies as directed by the THDWID. The customer is responsible for having the back-flow prevention

device periodically tested by a qualified back-flow assembly tester in accordance with manufacturers' specifications.

- Q. By no later than 15 days prior to a change in Parcel ownership, the Customer shall provide the THDWID with written notice to discontinue service and to indicate a change of Parcel owner. At such time as a Customer relinquishes title or ownership of a Parcel, then he or she shall no longer be a THDWID Member (based on that parcel) and shall no longer have the voting privileges, duties, or obligations of a THDWID Member with respect to the Parcel so relinquished.
- R. The THDWID Member shall be responsible for all water charges associated with the THDWID Member's Parcel up to the time of closing sale to a new owner.
- S. Nothing in this section shall prohibit the THDWID from collecting amounts owed for water services by any former THDWID Member after the former THDWID Member has relinquished title or ownership of a Parcel.
- T. The Parcel Owner shall immediately notify THDWID whenever tenants who are paying water service bills change and shall provide new tenant contact information. The Parcel Owner shall notify new tenant of THDWID policies and procedures.

2.2.2 THDWID Responsibility

To the best of its ability the THDWID Board will fulfill the following responsibilities:

- A. The THDWID will be responsible for providing potable water to the meter outlet.
- B. The THDWID's obligations hereunder are conditioned on availability of water and adequate service lines.
- C. The THDWID will make reasonable efforts to supply a satisfactory and continuous level of service. However, the THDWID will not be responsible for any damage or claim of damage attributable to any interruption or discontinuation of service.
- D. The THDWID will not assume the responsibility of inspecting a Customer's piping or apparatus and will not be responsible for any problem or damage due to improper installation or maintenance of piping or apparatus on the Customer's Parcel.
- E. The THDWID will make reasonable efforts to reestablish service within the shortest practicable time when service interruptions occur.
- F. The THDWID will make reasonable provisions to meet emergencies resulting from failure of service, and will issue instructions to its employees and contractors

covering procedures to be followed in the event of emergency in order to prevent or mitigate interruptions or impairment of service.

- G. In the event of a national emergency or local disaster resulting in disruption of normal service, the THDWID may, in the public interest, interrupt service to Customers to provide necessary service to civil defense or other emergency service agencies on a temporary basis until normal service to these agencies can be restored.
- H. When the THDWID plans to interrupt service to perform necessary repairs or maintenance, the THDWID will attempt to inform affected Customers at least 24 hours in advance of the scheduled date and provide estimated duration of the service interruption. Such repairs will be completed in the shortest practicable and reasonable time to minimize the inconvenience to the Customers of the THDWID.
- I. In the event of a Critical Water Condition, the THDWID will provide reasonable notice of said Critical Water Condition by posting signs at the community bulletin board at the mail boxes near the front entrance of the community, by posting on the THDWID web site, by sending emails for those who have provided email addresses and have authorized such contact, and by providing a notice with the monthly water bill.
- J. The THDWID will not be responsible for the negligence or intentional acts of third parties or forces beyond the control of the THDWID resulting in any interruption of service.
- K. The THDWID will not be liable for any failure to perform its obligations where such failure is as a result of Acts of Nature (including fire, flood, earthquake, storm, hurricane or other natural disaster), war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, labor dispute, strike, lockout or interruption or failure of electricity or any other act beyond its control.
- L. Water will be provided without charge to the Tonto Hills Volunteer Fire Department (THVFD) for fire suppression training or fire fighting purposes. THVFD will report to the THDWID Superintendent the number of gallons used whenever tanker trucks are re-filled from community standpipes or other non-metered locations within the water system. Where possible THVFD will provide advance notice so that the Superintendent can install a portable meter at the non-metered location to measure the water use.
- M. THDWID will bill the parcel owners on whose property the fire was suppressed for water used.

2.3 DEPOSITS AND FEES

2.3.1 Security Deposits

- A. The THDWID reserves the right to require a security deposit from any new applicant for service.
- B. Security deposits will be credited to the Customer's account within 30 days after a period of 12 consecutive months of service, provided that the Customer has not been delinquent in the payment of the water bills.
- C. Security Deposits may be reassessed for the following reasons:
 - 1. Customers who have two returned checks in a 12-month period.
 - 2. Customers who are disconnected for nonpayment.
 - 3. Customers who are delinquent two or more times in the past twelve months.
- D. When a Customer meets one of the above listed criteria, the deposit may be increased as follows:
 - 1. If no deposit or less than standard deposit is currently held by the THDWID, then increase the deposit to equal the current standard deposit.
 - 2. If the deposit currently held by the THDWID is equal to the current standard deposit, then increase the deposit to two times the standard.
- E. A separate deposit may be required for each meter installed or in use.
- F. When service is discontinued for non-payment, the security deposit will be applied to the outstanding balance. If there are any remaining monies, THDWID will continue to hold the deposit pending re-connection.
- G. At the time of re-connection, the Customer must pay whatever monies necessary to re-establish the Security Deposit in addition to other disconnection, re-connection and past due amounts.
- H. When service is discontinued due to a change in ownership, the refundable deposit shall be applied by the THDWID toward settlement of the Customer's final bill. THDWID will refund any remaining monies to the Customer.
- I. Former THDWID Customers who have had a minimum of 18 months of continuous service, and who have maintained an excellent payment record, will not be required to place a deposit when re-establishing service within 12 months of the turn-off date.

2.3.2 Fees and Charges

All fees, rates, and charges will be provided in the Fee Schedule established by the THDWID. The most current version of the Fee Schedule will be available at the THDWID office and on the web site for inspection by the THDWID Members. The THDWID will transmit to affected Customers a concise summary of any change in fees affecting those Customers. This information will be transmitted to the affected Customer no less than 60 days a prior to the effective date of the change. If required, Arizona state privilege, sales or use tax will be applied to the following fees, rates, and charges, as described in A.A.C. R 12-2-409 D3. Fees, rates, and charges shall include, but not be limited to, the following:

- A. Re-establishment (or “Stand-By”) Fee: A Re-establishment (or Stand-By) Fee may be charged on those accounts where the water is turned off at the request of the Customer for reasons other than repair
- B. Disconnection (Turn Off) or Reconnection (Turn On) Fees: Turn-on/turn-off fees apply to requests made in writing by the Customer currently using water, to turn on or turn off the THDWID valve for non-emergency reasons. The turn-on/turn-off fees may also be charged when an account is turned off for non-payment.
- C. Late Payment Fee: All Delinquent Accounts may be charged a Late Payment Fee. This fee may be in addition to all other applicable fees.
- D. Collection Fee: Delinquent Accounts may be charged a Collection Fee when it is necessary for the THDWID to seek payment by sending a special collection letter, calling the Customer, leaving a shut-off notice on the premises, or turning the account over to a collection service. The Collection Fee may be added to the next month’s bill.
- E. Fee Adjustments: The THDWID Board of Directors has the authority to adjust the Fee Schedule. Public notice of a proposed fee adjustment will be given as provided in A.R.S. §48-910 and amendments thereto.
- F. Special Water Fees: The THDWID Board of Directors has the authority to establish special water fees for all government, commercial or other entities that wish to use the THDWID’s water.
- G. Fee Schedule
 - 1. Usage Charges, Commodity Rates, and Service Line and Meter Installation Charge: The following usage and commodity rates have been effective since January 1, 2014. Conservation Stages are defined in the Policies and Procedures (see www.TontoHillsWater.org).

COMMODITY RATES PER 1,000 GALLONS PER MONTH BY CONSERVATION STAGE IN EFFECT				
(Zero Gallons Included in Base Rate)		Stages 1 & 2	Stage 3 ^a	Stage 4 ^a
1st Tier: 0 – 4,000 Gallons	\$	6.80	6.80	6.80
2nd Tier: 4,001 – 13,000 Gallons	\$	10.20	10.20	10.20
3rd Tier: 13,001 – 20,000 Gallons	\$	12.30	15.00	20.00
4th Tier: 20,001 – 30,000 Gallons	\$	12.42	20.00	40.00
5th Tier: over 30,000 Gallons	\$	12.55	30.00	70.00

MONTHLY USAGE CHARGES (BASE RATE)		
5/8" Meter (includes 5/8" x 3/4")	\$	40.00
3/4" Meter	\$	40.00
1" Meter	\$	100.00

SERVICE LINE AND METER INSTALLATION CHARGES^b		
5/8-inch Meter (includes 5/8 x 3/4)	\$	800.00
3/4-inch Meter	\$	1,000.00
1-inch Meter	\$	1,200.00

SERVICE CHARGES		
Establishment	\$	100.00
Disconnection (Delinquent or other) – “turn off”	\$	50.00
Reconnection (Delinquent or other) – “turn on”	\$	50.00
After Hours Surcharge for above services	\$	50.00
Late Payment Fee	\$	10.00
Collection Fee	\$	25.00
Security Deposit (refundable if account paid)	\$	250.00
Re-Establishment (within 12 months) – “standby”	\$	---- ^c
Deferred Payment (per month charge)	\$	1.50%/mo
Interest on Delinquent Balances	\$	---- ^d
Insufficient Funds (NSF) Check	\$	35.00
Meter Re-read (If Correct)	\$	15.00
Meter Test (If Correct)	\$	---- ^e
Meter replacement at Customer request or after meter is 5 years old	\$	---- ^f

Footnotes to Commodity Rates and Charges:

- a Stage 3 and 4 water resource conditions are reached when any combination of build-out, water use, and adjustments to useable CAP allocation causes 80% or 90%, respectively, of the total useable CAP allocation to be used (see Policies & Procedures).
- b Charges apply to standard installations only. Extra charges may apply to non-standard installations. Charges are non-refundable.
- c Number of months off system times the monthly minimum as described in Arizona Administrative Code (A.A.C.) R14-2-403(D)
- d Calculated per Arizona Revised Statute (A.R.S.) §48-910(G)
- e \$50.00 plus cost of the bench test
- f Charged on time and materials basis

One-Time Facilities Infrastructure Fee

Each new service connection shall pay the total one-time, non-refundable facilities infrastructure fee, derived from the following schedule:

ONE-TIME FACILITIES INFRASTRUCTURE FEE SCHEDULE			
(Non-refundable)			
Meter Size (inches)	NARUC Mater Factor	Total Fee	
5/8 (includes 5/8 x 3/4)	1	\$	4,000
3/4	1.5	\$	4,500
1	2.5	\$	7,500

1. Assessment of One-Time Infrastructure Fee: The infrastructure fee may be assessed only once per service connection, or lot within a platted subdivision. However, this provision does not exempt from the infrastructure fee any newly created parcel(s), which are a result of further subdivision of a lot or land parcel and which do not have a service connection.
2. Time of Payment:
 - In the event that the Applicant is required to enter into a main extension agreement, whereby the Applicant agrees to advance the costs of installing mains, valves, fittings, hydrants and other on-site improvements in order to extend service as described in A.A.C. R14-2-406(B), payment of the charges

required hereunder shall be made by the Applicant within 15 calendar days after receipt of notice of approval from the THDWID.

- In the event that the Applicant is not required to enter into a main extension agreement, the charges hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.

2.4 BILLING

2.4.1 Assessment Billing

- A. As part of the formation of the THDWID, THDWID member's parcels were assessed \$3,600 each.
- B. THDWID members have the option of paying the remaining full amount or paying in semi-annual installments over twenty years. Installment payments may have an administrative fee added.
- C. Semi-annual installments are due June 1 and December 1.
- D. All assessment notice mailing and collection activities will be done as specified in A.R.S. 48-937-945. Following are the highlights of the legal process including our option to make additional collection efforts prior to the auction. The Treasurer of the Board reserves the right to alter the timings and actions as he judges warranted.
- E. Assessment notices will be mailed at least thirty days before the due date and include the THDWID's name, the amount of the installment and the date the property will be put up for sale if the installment is not paid by the due date.
- F. Late payments may be assessed a 5% delinquency penalty.
- G. The Board of Directors may add additional late fee charges to include all costs associated with handling non-payments such as administrative, phone, etc.
- H. Within twenty days from the delinquency date, the THDWID will prepare a list of all delinquent assessments.
- I. The THDWID will send a letter or email to the parcel owner notifying them of the possible consequences of non-payment. Additionally, the THDWID may elect to contact the parcel owner by telephone.

- J. The THDWID will conduct a title search to determine all lien claimants in accordance with A.R.S. 48-940.01A.
- K. The THDWID will mail notice regarding the auction to all lien claimants and the owner in accordance with A.R.S. 48-940.01. The notice will list a description of the parcel, the name of the owner, the amount of the delinquency and the late fee and other costs due, including the cost for advertising. The notice will include a statement that unless each installment plus late fees and costs is paid, the entire amount of the assessment is due in full. Non-payment nullifies the ability of the property owner to pay the assessment in installments. If no payment is received, the property will be offered for sale at public auction at a time and place specified in the same notice.
- L. The THDWID will hold the auction in accordance with A.R.S. 48-941.
- M. If there is a purchaser, the THDWID will issue a certificate of sale in accordance with A.R.S. 48-942.
- N. If there is no purchaser, the property will be “struck off” to the THDWID.
- O. Within thirteen months after the date of sale and up until the delivery of a deed to the purchaser, redemption may be made by any party having an interest in the property. Redemption is made by paying the THDWID the amount for which the property was sold plus percentages specified in A.R.S. 48-943. These monies are reimbursed to the bid-winning purchaser. The THDWID will follow the redemption steps outlined in A.R.S. 48-943.
- P. Thirteen months after the sale, presuming no redemption, the THDWID will notify the purchaser, he may apply for a deed. The THDWID and the deed applicant purchaser shall follow the process specified in A.R.S. 48-944.
- Q. In the event the property was “struck off” to the THDWID, the Board of Directors may sell the property at its discretion after obtaining the deed.

Note: See **Appendices D through K** for more information on the assessment collection and auction process.

2.4.2 Meters and Meter Readings

- A. Each meter will be read monthly on as close to the last day of the month as practicable. Estimated meter readings may be used if conditions for meter reading at specific meters are deemed to be unsafe by the Superintendent. The Superintendent will advise the affected customers.

- B. The THDWID will, at the request of the Customer, re-read the Customer's meter within ten (10) working days after such request by the Customer. If the reading is found to be in error, the re-read will be at no cost to the Customer.
- C. The Accounting Firm, based on the monthly meter reading, will compare the usage to prior months' usages. If the usage appears out of line, the Accounting Firm will notify the Superintendent who shall verify the accuracy of the meter read. If it is accurate, the Superintendent will immediately contact the Customer. The Customer should check for water leaks on his property. If the reading is not accurate, the Superintendent will notify the Accounting Firm of the correct reading.
- D. In the event of a water line break on the Customer's side of the meter resulting in excessive water usage, a member may request a reduction in the amount owed. The Superintendent will investigate the circumstances. If the excessive usage is a new circumstance and the member promises to take remedial action to mitigate future events, the Superintendent may recommend that the Treasurer reduce the amount owed. If the Treasurer agrees with the recommendation, the Treasurer may recalculate the invoice charging the member's normal usage at the prevailing rate and the member's excessive usage at the highest per tier gallon rate Scottsdale charges the THDWID. If there is disagreement between the Superintendent and the Treasurer, the Treasurer may bring the issue to the Board.
- E. THDWID representatives will test a meter on Customer request and charge the Customer for such meter test according to the approved fee schedule. If the meter is found to be over reporting usage by more than 3%, no meter testing fee will be charged to the Customer.
- F. If any meter, after testing, is found to be over reporting usage by more than 3%, proper correction shall be applied in the next billing cycle. The THDWID Superintendent will consider replacing the meter.
- G. The Customer shall be responsible for damage to meters and/or meter settings where such damage is caused by the Customer or his agent, employee, or any member of his family. The Customer shall be billed for the actual cost of repair or replacement and the amount shall be payable with the next regular bill.
- H. When meters must be moved or replaced that are "built in" on Customer's driveways, patios, walkways, etc., the THDWID will remove the meter and box as necessary to replace or repair. In some cases to avoid destroying Customer facilities, landscaping, or materials, the THDWID will locate the new meter box adjacent to the Maricopa County right-of-way or at the Customer's Parcel line. This will be done at the THDWID's discretion and the Customer shall be responsible for the water line from the meter outlet to the usage point. The Customer shall be responsible for the cost of repair or replacement of adjacent landscaping or structure.

- I. THDWID Board will have an ongoing meter replacement process and schedule. The Superintendent will maintain records of all meter replacements.

2.4.3 Water Services Billing Procedures

- A. The THDWID will issue monthly invoices to Customers. Each water bill will include the following information:
 1. Date and meter reading at the start and end of billing period
 2. Total account balance including remaining credits or balances from previous water bills
 3. Previous billing month's ending meter reading, if different from the start of the current billing period
 4. Billed base fee and usage (in gallons)
 5. THDWID's telephone number and addresses
 6. Customer's name and address.
 7. The Occupant's name and address will appear in the "Bill To" box and the Customer's name and address will appear in the "Ship To" box if different.
 8. Service account number, which is the lot number
 9. Amount due and due date
 10. Past due amount, if applicable, and due date
 11. Adjustment factor or amount, if applicable
 12. Other approved charges; e.g. sales tax
 13. Notices on each invoice of consequences of delinquent accounts
 14. Other notices as may be appropriate.
 15. Invoices will be sent to the Customer's/Occupant's e-mail address, if provided. A Customer may request U.S. Mail invoicing.

2.4.4 Billing Terms

- A. Bills for water use will be computed in accordance with the THDWID's authorized Fee Schedule.

- B. Charge for water use service commences when the Authorized Water Service Connection is made, whether water is used or not.
- C. All delinquent bills shall be subject to the provisions of the THDWID's collection and termination procedures.
- D. All payments shall be mailed to the THDWID's accounting office or as otherwise specified in the bill.
- E. The base fee shall be prorated on final bills and on new Customers.
- F. The THDWID will accept advance payments for water service.
- G. Failure to receive bills or notices that have been properly placed in the U.S. Mail or e-mailed shall not prevent such bills from becoming delinquent nor shall it relieve the Customer of the obligation to pay the bill or to comply with the terms and provisions of a notice.
- H. In addition to collection of regular fees, the THDWID will collect from its Customers any required privilege, sales, or use tax and remit the same to the taxing authority.
- I. Bill payments, including all applicable fees and sales tax, are due on the 20th of each billing month, which will be about 10 or more days after the bill mailing date. Any Customer account is considered delinquent if payment has not been received within ten (10) calendar days after the due date. A Late Payment Fee will be assessed on all payments received by the THDWID after this 10-day period. Thirty (30) calendar days after the delinquent date, the THDWID may discontinue service to the Customer whose bill is delinquent. Each bill will contain total balance due and notice of actions to be taken if not paid within this 30-day period. No late notice is sent to the Customer, other than the water bill.
- J. Following is a time line example:
 - Month 1, day 1: Meter read, reviewed by the Superintendent and information transmitted to the Accounting Firm.
 - Month 1, day 8 or before: Invoices mailed by the Accounting Firm.
 - Month 1, day 20: Payment late if not received.
 - Month 2, day 1: Meter read, reviewed by the Superintendent and information transmitted to the Accounting Firm.
 - Month 2, day 8 or before: Invoice mailed including late fee and notice on service discontinuance.

- Month 2, day 15: Accounting Firm notifies Treasurer of unpaid at this delinquency level. Treasurer calls Occupant and Owner regarding imminent service discontinuance.
- Month 2, day 30: Service discontinued if no payment received.
- Month 3, day 1: Meter read, reviewed by the Superintendent and information transmitted to the Accounting Firm.
- Month 3, day 8 or before: Invoice mailed including turn-off fee and information on total amount, including turn-off, turn-on, deposit, collection fees and past due amounts, that must be paid prior to re-connection.
- Month 3, day 20: Lien is filed, potential assignment of debt to a collection agency.

- K. Service will be reconnected only after all due bills are paid in full, together with any turn-off fee, reconnection fee, security deposit, and other applicable charges, in accordance with the Policies and Procedures. Payment must be made to the Accounting Firm during normal business hours.
- L. Records related to all, with and without notice shut-off, will be maintained for one year.
- M. The Treasurer of the Board reserves the right to modify actions and/or times if he judges modification warranted.
- N. A Customer may instruct the THDWID, in writing and by providing the proper billing address, to bill the Customer's guests, tenants, employees or other authorized parties occupying a Parcel for THDWID bills; however, in the event that a guest, tenant, employee or other authorized representative of a Customer fails to pay a THDWID bill, the Customer will be notified of the delinquency of the account and shall be responsible for payment of the bill. Note: the owner's name and address appear in the "Ship To: portion of the bill.
- O. If the Customer believes a bill to be in error, he shall present a claim in writing to the THDWID before the bill becomes delinquent, even if the bill is in dispute.
- P. The THDWID may charge the Customers any fees or charges assessed to the THDWID by any Federal, state, or county entity.
- Q. Delinquent accounts with an outstanding balance and meeting the criteria set forth in A.R.S. §48-910 may, at the discretion of the majority of the Board, be subject to legal action, including but not limited to the recording of a notice of lien against the Parcel and/or the meter. The lien amounts may include attorney's fees and costs incurred by

the THDWID in preparing and recording the notice of lien. Any collection agency costs will be charged to the delinquent Customer.

2.4.5 Accounts That Are Not Charged a Late Payment Fee

- A. Re-billed or adjusted accounts.
- B. Accounts being disputed via proper channels.
- C. Over-reads.
- D. Bills issued after the 8th of the month by THDWID.

2.4.6 Payment Arrangements

- A. The THDWID Treasurer may, in lieu of termination, offer to qualifying Customers a payment arrangement plan. These provisions are as follows:
 - 1. Each deferred payment arrangement entered into by the utility and the customer due to the customer's inability to pay an outstanding bill in full shall provide that the service will not be discontinued if:
 - a. Customer agrees to pay a reasonable amount of the outstanding bill at the time the parties enter into the deferred payment agreement.
 - b. Customer agrees to pay all future bills for water service timely in accordance with terms in these policies and procedures.
 - c. Customer agrees to pay a reasonable portion of the remaining outstanding balance over a period not to exceed six months.
 - 2. For the purpose of determining a reasonable installment payment schedule under these rules, the THDWID and the customer will give consideration to the following conditions:
 - a. Size of the delinquent account.
 - b. Customer's ability to pay.
 - c. Customer's payment history.
 - d. Length of time the debt has been outstanding.
 - e. Circumstances that resulted in the debt being outstanding.
 - f. Any other relevant factors related to the circumstance of the customer.

3. Any customer who desires to enter into a deferred agreement shall establish such agreement prior to THDWID's scheduled termination date for nonpayment of bills; customer's failure to enter a deferred agreement prior to the scheduled termination date shall not prevent the THDWID from discontinuing service for non-payment.
4. Deferred payment agreements will be in writing and will be signed by the customer and an authorized THDWID representative.
5. A deferred payment agreement may include a finance charge approved by the Board.
6. If a customer has not fulfilled the terms of a deferred payment agreement, the THDWID has the right to disconnect service pursuant to THDWID's termination of service policies and procedures and, under such circumstances, it shall not be required to offer subsequent negotiation of deferred payment agreement prior to disconnection.

2.4.7 Water Service and Change of Parcel Ownership

- A. By no later than 15 days prior to a change in Parcel ownership, the Customer shall provide the THDWID with written notice to discontinue service and to indicate a change of Parcel owner. At such time as a Customer relinquishes title or ownership of a Parcel, then he or she shall no longer be a THDWID Member (based on that parcel) and shall no longer have the voting privileges, duties, or obligations of a THDWID Member with respect to the Parcel so relinquished.
- B. The THDWID Member shall be responsible for all water charges associated with the THDWID Member's Parcel up to the time of closing sale to a new owner.
- C. Nothing in this section shall prohibit the THDWID from collecting amounts owed for water services by any former THDWID Member after the former THDWID Member has relinquished title or ownership of a Parcel.
- D. The Secretary may obtain a copy of the deed in the new owner's name and deliver it to the Clerk.
- E. The Clerk will ensure that the name on the water service application matches the name on the deed. If the names do not match, the Clerk will alert the Treasurer and Secretary.

2.4.8 Water Service Change of Occupancy

- A. The Parcel Owner shall immediately notify THDWID whenever tenants who are paying water service bills change and shall provide new tenant contact information.
- B. The Parcel Owner shall notify new tenant of THDWID policies and procedures.

2.5 TERMINATION, REFUSAL, AND TEMPORARY DISCONNECTION OF WATER SERVICE

2.5.1 Termination of Service Without Notice

The THDWID may disconnect water service without advance written notice under the following conditions:

- A. The existence on the parcel of an obvious hazard to the safety or health of the Customer or the general population, or the Customer is violating any federal, state, or local laws, ordinances, statutes, rules or regulations on the parcel.
- B. THDWID has evidence of meter tampering or fraud.
- C. Unauthorized resale or use of the water service.
- D. Failure of a Customer to comply with the curtailment procedures imposed by the THDWID during supply shortages. This is considered an abusive use.
- E. A change of ownership wherein the new owner has not made application for service.
- F. Fraud or abuse.
- G. The willful disregard of or refusal to comply with these Policies and Procedures (or such rules as may be adopted by the Board of Directors) by the Customer, its guests, tenants, employees or other authorized parties.
- H. Emergency repairs and unauthorized turn-on.
- I. Insufficient water due to circumstances beyond the THDWID's control.
- J. Legal processes or the direction of public authorities.
- K. Strike, riot, fire, floods, accident or any unavoidable cause.

- L. Excessive or abusive use of water.

The THDWID will not be required to restore service until the conditions that resulted in termination have been corrected and all fees are paid to the satisfaction of the THDWID.

2.5.2 Refusal of Service

The THDWID may refuse to establish or continue service if any of the following conditions exist:

- A. Applicant has an outstanding amount due for any service or assessments with the THDWID, and the THDWID and the Applicant are unable to agree upon arrangements for payment.
- B. Applicant has not obtained approval from the Tonto Hills Architectural Control Committee for planned construction/development on the parcel.
- C. Customer is in violation of rules or policies of the Tonto Hills Improvement Association or Architectural Control Committee.
- D. A tenant has left the account with an outstanding balance for which the parcel owner is responsible for payment and the THDWID and parcel owner are unable to agree upon arrangements of payment.
- E. A safety or hazardous condition exists on the parcel, or the Customer is violating any federal, state, or local laws, ordinances, statutes, rules or regulations on the parcel.
- F. Refusal by the Applicant to provide the THDWID with a deposit.
- G. Customer is known to be in violation of the THDWID's rules and regulations
- H. Failure of the Customer to furnish such funds, service equipment, and/or rights-of-way necessary to serve the Customer and which have been specified by the THDWID as a condition for providing service.
- I. Applicant falsifies his/her identity for the purpose of obtaining service.
- J. Applicant interferes with the THDWID's access rights or needs.

2.5.3 Temporary Disconnection of Water Service

Customers seeking to have their water service temporarily disconnected (turned off) for construction maintenance or repair purposes must contact the THDWID for this service. Turn-on/turn-off fees may be charged to Customers that have a temporary disconnect and re-connect.

2.6 CUSTOMER WATER SERVICE COMPLAINTS

- A. Complaints must be filed at the THDWID principal office by setting forth the complaint in a written statement by the Customer or its authorized representative or agent. The complaint will be answered by the THDWID or its authorized representatives, including its legal counsel if deemed necessary by the Board, as soon as practicable within a maximum of sixty-five (65) days from the THDWID's receipt of the complaint. Copies of complaints will be maintained at the THDWID principal office. The procedure for making and hearing Protests and Objections is described in A.R.S. §48-918.
- B. The THDWID Board will make a full and prompt investigation of all written complaints pertinent to the THDWID made by its Customers.
- C. The THDWID Board will respond to the complainant within a reasonable time, as permitted above, as to the status of the Board's investigation of the complaint.
- D. The THDWID Board will notify the complainant of the final disposition of each complaint. On request of the complainant, the THDWID Board shall report the findings of its investigation in writing.
- E. The THDWID Clerk will keep a record of all written complaints received that will contain, at a minimum, the following data:
 1. Name and address of the complainant
 2. Date and nature of the complaint
 3. Disposition of the complaint
 4. A copy of any correspondence between the THDWID, the Customer, and/or the Board.
- F. Any Customer who disputes a portion of a bill rendered for water service must pay the undisputed portion of the bill and applicable fees and taxes and notify the THDWID Board that such unpaid amount is in dispute prior to the delinquent date of the bill.

- G. On receipt of the Customer notice of dispute, the THDWID Treasurer will:
1. Notify the Customer within a reasonable time of the receipt of a written dispute notice.
 2. Initiate a prompt investigation as to the source of the dispute.
 3. Withhold disconnection of service, as long as the Customer's account is not delinquent, until the investigation is completed and the Customer is informed of the results.
 4. Complete the investigation and notify the Customer and the Board.
- H. Once the Customer has received the results of the investigation, the Customer can appeal to the Board. The Board will act within ninety days. Following the appeals, if any, Customer must submit payment within 30 days to the THDWID for any adjusted amounts due, and the THDWID will refund or apply to billings (at Customer's option) any adjusted amounts due Customer. Failure of Customer to make full payment shall be grounds for termination of service.

2.7 WATER CONSERVATION AND EMERGENCY PLANS

2.7.1 Conservation Monitoring

A requirement of THDWID's agreement with ADWR is for THDWID to develop an effective water conservation plan. See **Appendix Q** for the Water Conservation and Drought Contingency Plan. At five-year intervals, THDWID will submit the plan to ADWR for review and approval. In keeping with those requirements, THDWID shall:

- A. Minimize the amount of unbilled water usage by:
1. Reading consumer meters as close as possible to the date that Scottsdale reads our main meter.
 2. Reporting monthly on the total received from Scottsdale, the sum total of water use based on the consumer meter reads and the difference in gallons as a percentage of received gallons.
 3. Recording the gallons used by THVFD, in line flushing and other maintenance processes or construction.
 4. Tracking the difference between received gallons and billed gallons. Investigating significant changes in the difference.
 5. Identifying and rectifying the problem whenever the facts/trends indicate a potential problem.

6. Investigating and employing leakage detector technologies that make economic sense.
 7. Comparing individual parcel usage vs. history. In the event usage spikes, notifying the owner of a potential problem and providing ideas on potential causes and solutions.
 8. Executing a systematic plan for meter testing and replacement.
 9. Installing water tank gauging technology.
- B. Have a pricing structure to encourage water conservation by:
1. Instituting a tiered structure such that increased usage results in a higher unit price per gallon.
 2. Contacting Customers with excessive usage considering the parcels features (e.g. pool, fountain, horse troughs, etc.) with suggestions on how to minimize usage.
 3. Monitoring the pricing structure of nearby water companies.
- C. Develop and implement on an ongoing consumer education plan, including:
1. Providing new residents with water conservation materials.
 2. Developing material on efficient plumbing fixtures, pool covers, desert plants, landscape irrigation design, maintenance and watering schedule management, etc.
 3. Distributing timely material on pipe freezing dangers and prevention. In the event of a burst pipe work, with the Customer to minimize water loss and prevent future breaks.
 4. Providing material to Customers via newsletters, meetings and personal visits.
- D. Developing a water shortage contingency plan, including:
1. Defining levels of Critical Water Conditions.
 2. Defining respective water restriction levels.
 3. Publicizing the water restriction level to the Community.
 4. Enforcing the water restrictions.

2.7.2 Water Conservation Mandatory Actions

There are times when Members must limit their demand to achieve a level of fair usage of the limited supply. In addition, Members must remember that we live in a time of drought and should expect to react accordingly. See Water Conservation Plan in **Appendix Q** for water restriction levels and conditions.

2.7.3 Tank Gauging System

A. Tank Gauging System Purpose

1. The purpose of the tank gauging system is to alert the THDWID of potential water system leaks in a timely manner and to assist monitoring community water usage for regulatory and conservation purposes.
2. The system provides continuous monitoring of the water supply. The data received is used to better monitor and calculate tank and water usage parameters, including alerting THDWID personnel of any unusual outflow occurrences that may indicate system leaks.

See the **Appendix L** for more information.

B. General Elements of System

1. Key elements of system include:
 - a. Pressure transducer inside tank that measures depth to water.
 - b. Digital flowmeter on inflow line to tank from City of Scottsdale water system.
 - c. Automatic control valve that opens on demand.
 - d. Datalogger that records data from the transducer and flowmeter and actuates the control valve.
 - e. Radio transmitter that communicates with a dedicated computer in the community.
 - f. AC electrical service to the tank site that powers the control valve.
 - g. Solar panel that powers the datalogger and radio transmitter.
 - h. Dedicated computer that downloads the data via radio, displays important operational parameters on a dashboard, and issues alarms to THDWID personnel via text and email when conditions fall outside normal operating limits.

C. Tank Gauging System Procedures

1. Data are generally downloaded monthly from the computer and compiled into spreadsheets that are used to analyze water usage and supply conditions in various ways. These analyses provide a comprehensive understanding of trends in the water system as well as information needed for reporting to regulatory agencies and preparing water orders for the Central Arizona Project, City of Scottsdale, and water banking facilities.

2. When inflow to the tank is insufficient or outflow from the tank is unusually large, the computer annunciates alarms with audio and visual indicators and also sends texts and emails to THDWID personnel wherever they are located. Critical alarms will continue until acknowledged at the computer; non-critical alarms generally do not repeat.
3. When a critical alarm is issued, the Superintendent or other on-duty personnel will respond immediately by going into the field to search for the cause of the alarm. When a non-critical alarm is issued, the Superintendent or other on-duty personnel will record the event and plan a response to mitigate the condition.
4. Critical alarms must be acknowledged on the computer and addressed immediately or the alarm will recur. Non-critical alarms generally do not repeat, but do require acknowledgement. All alarm events are recorded into an Alarm Log by the computer.

2.7.4 Emergency Response Plan

A. GENERAL

1. In general, operational emergencies for the THDWID water system are due to issues that arise for water quantity and/or water quality. Communications with the THDWID members regarding water emergencies are accomplished via the THDWID web site and email and, when necessary and appropriate, via telephone and/or door-to-door visitation/fliers. As required by Arizona Revised Statutes and current regulations and policies of Maricopa County, Arizona Department of Environmental Quality, and the U.S. Environmental Protection Agency, timely notification to the appropriate agencies may be necessary in the event of serious supply interruptions, water contamination, or other conditions that may threaten human health and welfare or the environment. The Maricopa County Sheriff's Department should be contacted if any vandalism to the water system is experienced; water supply vandalism is a felony crime.
2. Scottsdale Contact Information: If a quantity or quality supply problem is suspected from the City of Scottsdale (COS), there are two contact phone numbers for designated THDWID personnel to use: Scottsdale Water Department control room number is 480-312-8708. The 24-hour emergency number is 480-312-5650; if calling this number, ask to page the Maintenance Tech for Production at station 94 located at 111th Place, Desert Mountain. THDWID Members should not complicate the situation by contacting the Scottsdale Water Department; instead, please contact your THDWID using our office and emergency phone numbers.

B. SYSTEM OUTAGE NOTIFICATION TO CUSTOMERS

1. **Phone Messages for THDWID Phones:** The THDWID office phone number (480-595-0128) and emergency phone number (480-745-1427) will have specific voice mail greetings for normal operations and operations during an event. THDWID phone greetings are given in **Appendix S**.
2. **Planned Outage:**
 - a. The Superintendent will:
 - i. Notify by phone and/or e-mail those Members we anticipate could be impacted. The Clerk may assist with the notification. The notification will describe the nature/reason of the planned work, the anticipated start/end times, and precautionary steps the Member should take (e.g., unplugging re-circulating hot water pumps). The notice will be made 48 hours or more in advance of the planned work.
 - ii. Initiate action to minimize adverse impact (e.g., opening standpipes and closing valves that minimize the number of Members impacted).
 - iii. Notify the Board Operations Liaison if work is going to take longer or impact more people than anticipated.
 - b. The Secretary of the Board, with the assistance of the Clerk, will:
 - i. Change the voice message on the emergency phone number to provide a summary of the situation.
 - ii. Issue an e-mail blast (using the Mail Chimp THDWID email notification system) conveying the same information as above to all Members, but indicating which Members are likely to be impacted. Additionally, the message will include the proviso that, due to possible unforeseen circumstances, the outage might extend beyond the anticipated area and/or last longer than anticipated. If a Member notices a drop in water pressure they should take precautionary steps, including turning off power to their hot water circulation pumps and water heaters, as well as checking for proper function of their backflow prevention devices.
 - iii. Post a bulletin board notice with the same information as above.
 - iv. Change the voice message back to the standard message once the work is completed.
 - c. The Operations Liaison will:
 - i. Enlist other Board members to phone/e-mail members if more Members will be impacted and/or Members will be impacted for longer than anticipated. Note: An Emergency List of Member phone

numbers and e-mail addresses arranged in street location order will be available.

d. The Chairman will:

- i. Return calls to Members who leave voice mails. He will update the Members on the circumstances.

3. **Emergency**

a. If the Chairperson is notified of an emergency via a Member's voice mail message, he will:

- i. Notify the Operations Liaison, the Superintendent, and the Secretary of the circumstances.
- ii. Call back the notifying Member when the facts and planned action are known. He will advise the Member of precautionary measures.

b. If the Superintendent is the first to discover the emergency, he will:

- i. Notify the Operations Liaison.
- ii. Begin the repair process. If it is necessary to close valves before opening standpipes, the Superintendent will let the Operations Liaison know about other precautionary measures Members should take due to a potential negative pipe pressure or interruption of water supply created.
- iii. Keep the Operations Liaison updated on progress/problems.

c. The Operations Liaison will:

- i. Notify the other Board members regarding the nature of the problem, estimated repair time, and indicate precautionary measures Members should take.
- ii. Assist the Superintendent.
- iii. Keep the other Board members updated on progress.

d. The Secretary, with the assistance of the Clerk, will:

- i. Send an e-mail blast to all Members. The message will advise the nature of the problem, the areas likely to be impacted, the best guess repair timing, precautionary measures if the Member has a water pressure drop, and a proviso that a wider area could be impacted and repairs could take longer than anticipated. If a Member notices a drop in water pressure they should take precautionary steps, including turning off power to their hot water circulation pumps and water heaters, as well as checking for proper function of their backflow prevention devices.

- ii. Update the greeting on the emergency phone number adding the information above.
 - iii. Re-update the e-mail and phone greeting as the situation changes.
- e. The Chairperson will:
 - i. Initiate phone calls to members we anticipate will be impacted by the valve closures.
 - ii. Enlist other board members and the Clerk in the calling, if necessary.
- 4. **Crossover Board Responsibilities**: In the event the designated Board member is not available, another Board member will complete the duties.
- 5. **Emergency Notification Procedures**: See **Appendix S** for procedures on changing the THDWID emergency phone greeting message and sending e-mail blasts to Customers.

C. WATER QUANTITY

1. There are presently only two sources of water supply for the THDWID: 1) the primary long-term source from the City of Scottsdale (COS) water distribution system; and 2) a secondary source of trucked water contracted on an as-needed basis only. A long-term contract with COS provides for COS to withdraw THDWID's 100-year Central Arizona Project (CAP) municipal surface water allocation from the CAP canal and to treat it and deliver it to THDWID. The emergency response procedures for interruption of the water supply are determined by the duration and type of emergency.
 - a. **Short-Term**: The most common type of emergency is a leak in the THDWID water distribution system. This type of emergency is mitigated by using inline valves to isolate the problem area of the system and conducting immediate repairs. See the section on Shut Down procedures for more information. Interruption of service may also be caused by short-term repairs to the COS system. Service is typically restored to the isolated areas within 24 to 48 hours. Proper flushing and/or disinfection of the affected parts of the system will be conducted prior to resuming service, if necessary.
 - b. **Intermediate-Term**: When leaks in the system require longer repairs, bottled water can be provided to the affected residences. If the entire system is affected by multiple leaks or leaks that prevent water from being supplied from the storage tank, water can be trucked to the community from other areas of the COS system and, if necessary, a temporary water tank can be established at the most effective location in the system determined on a case-by-case basis. These measures are also effective for intermediate-term interruption of the COS supply or CAP supply due to repairs or construction. Proper flushing and/or disinfection of the affected parts of the system will be conducted prior to resuming service, if necessary.

- c. Long-Term: Interruption or decrease of the THDWID water supply lasting more than a few weeks or months would most likely involve cut backs in the CAP deliveries and/or THDWID CAP allocation due to long-term drought conditions. The risk and impact of this type of event is expected to be minimal due to:
 - i. Type of CAP Allocation: The Municipal & Industrial CAP allocation that THDWID possesses holds a high priority within the hierarchy of CAP water users. Drought studies conducted by the Arizona Department of Water Resources (ADWR) indicate that lower priority water users will experience cut backs before THDWID and the THDWID cut backs would be equally shared on a percentage basis with all the other Municipal & Industrial CAP allocations. The ADWR studies indicate that the risk of a significant cut back to the THDWID allocation is very small for the period studied.
 - ii. Investment in Long Term Storage Credits (LTSCs): Effective January 2014, the THDWID has an agreement in effect whereby the Roosevelt Water Conservation District “banks” that portion of our 71 A/F allocation that THDWID does not anticipate needing in the upcoming year. This water is provided in return for Long Term Storage Credits (LTSCs). These credits can be accumulated and held in reserve to supplement THDWID’s existing CAP allocation in times of water shortages on the CAP. In the unlikely event that CAP drought cut backs would significantly impact the amount of surface water COS can withdraw from the CAP canal for THDWID, THDWID can supplement its CAP supply by transferring the LTSCs to COS. COS can then provide an amount of water equal to the credits and count it as part of the groundwater it pumps into its system, without counting it against the COS service area water groundwater right.

D. WATER QUALITY

1. The THDWID water quality could be impacted by contamination of the COS water system or the local THDWID distribution system. COS provides a high quality source of drinking water and maintains treatment and testing programs to ensure the water is safe to drink. In addition, the THDWID treatment and delivery contract with COS requires COS to provide safe drinking water to the entry point of the THDWID water system. Both COS and THDWID conduct regular testing of the water quality in their systems under monitoring programs required and overseen by the Arizona Department of Environmental Quality and Maricopa County. Results of this monitoring program are reported to consumers in an annual Water Quality Report (also known as a Consumer Confidence Report). The emergency response procedures for water quality issues of the water supply are determined by the duration and type of emergency.

- a. Short-Term: This type of emergency is mitigated by using inline valves to isolate the problem area of the system and conducting immediate repairs and decontamination. Interruption of service may also be caused by short-term issues with water quality of the COS system. Service is typically restored to the isolated areas within 24 to 48 hours. Proper flushing and/or decontamination of the affected parts of the system will be conducted prior to resuming service, if necessary.
- b. Intermediate-Term: When water quality impacts require longer to resolve, bottled water can be provided to the affected residences. If the entire system is affected by contamination or if water from the storage tank cannot be used, water can be trucked to the community from other areas of the COS system and, if necessary, the water storage tank can be bypassed by using a temporary water tank at the most effective location in the system determined on a case-by-case basis. If the cause of the emergency is the COS source, these measures can be applied by trucking water from an alternate source determined to be safe. Proper flushing and/or decontamination of the affected parts of the system will be conducted prior to resuming service, if necessary.
- c. Long-Term: Interruption or decrease of the THDWID water supply lasting more than a few weeks or months would most likely involve a chronic source of contamination in the COS and/or THDWID systems detected by long-term water quality monitoring. This type of water quality problem would be mitigated as required by the Arizona Department of Environmental Quality and Maricopa County. Potential mitigation methods could include: periodic flushing of the distribution system; strategic re-piping of parts of the system; centralized treatment; and/or point-of-use treatment, such as household filtration, etc. The advantages and disadvantages to each mitigation method would be weighed and an appropriate action would be taken in coordination with the Arizona Department of Environmental Quality and Maricopa County.
- d. Water Trucking and Tank Rental Firms: THDWID has an account set up with **Rio Verde Water Hauling** for water trucking and an account with **310 Dust Control** for temporary water tank rental. Following is a table of water trucking and tank rental firms serving the Tonto Hills area.

Company	Location	Telephone #	Hauling Fee	Tank Rental	Misc. Fee	Advanced	Response Time
Rio Verde Foothills	35617 N. 136 th St. Scottsdale, AZ 85362	(602) 228-5547	\$150 hr for 6K gal	\$125 wk	Fuel \$25 / truck	No	
310 Dust Control	515 E Carefree Highway PMB #868 Phoenix, AZ 85085	(602) 228-8753		\$500 mo			
Crystal Creek Water Hauling	515 East Carefree Hwy Phoenix, AZ 85085	(602) 349-207	\$100 / 2K gal	No	No	No	
Jim's Water Truck Service	2415 N. Pioneer Mesa, AZ 85203	(480) 969-1882	\$250 hr / 2K gal	No	No	No	
Mega Water Works	48412 N. Black Canyon Hwy New River, AZ 85087 and 3120 W. Carefree Hwy Phoenix, AZ 85086	(623) 465-4955	\$100 / 2K gal	\$150 wk	No	N	24 h

Arizona Administrative Code R18-4-214 requires the following of water haulers:

1. All hauled water for delivery to a public water system shall be obtained from a source that is approved pursuant to 18 A.A.C. 5, Article 5, or a regulated public water system.
2. Materials or products that come into contact with the water shall comply with R18-4-213(B).
3. Roof hatches shall be fitted with a watertight cover.
4. A bottom drain valve or other provisions to allow complete drainage and cleaning of a water transport container shall be provided.
5. Hoses that are used to deliver drinking water shall be equipped with a cap and shall remain capped when not in use.
6. A water hauler shall, at all times, maintain a residual free chlorine level of 0.2 mg/l to 1.0 mg/l in the water that is hauled in a water transport container. A chlorine disinfectant shall be added at the time water is loaded into the container. The residual free chlorine level shall be measured each time water is off-loaded from the container. The water hauler shall maintain a log of all on-loading, chlorine disinfectant additions and residual-free chlorine measurements. Such records shall be maintained for at least three years and made available to the Department for review upon request.

7. A water transport container shall be for hauling drinking water only. The container shall be plainly and conspicuously labeled “For Drinking Water Use Only.”

The THDWID Superintendent will inspect the water truck and paperwork prior to water being added to tanks used by the THDWID.

2.8 ANNUAL ORDERS FOR WATER FROM CAWCD, SCOTTSDALE, AND RWCD

2.8.1 Orders from Central Arizona Water Conservation District (CAWCD)

- A. On or before June 1, CAWCD determines how much CAP water is available for delivery the following calendar year
- B. CAWCD notifies THDWID thirty days later.
- C. In July of each year, the THDWID Board of Directors will meet to determine the amount of CAP water in whole acre-fee to order from CAWCD for the following calendar year. The Board will also determine how much CAP water to order for delivery to the Roosevelt Water Conservation District (RWCD) Groundwater Savings Facility for the following calendar year for accrual of an asset of Long Term Storage Credits. The CAWCD order must be determined before the amount of water remaining for the RWCD order, which is due earlier, can be known.
- D. On or before October 1 of each year, THDWID will submit a written order in whole acre-feet for delivery for each month of the following calendar year, together with a preliminary estimate of the water needed during the succeeding two calendar years.
- E. On or before November 15 of each year, CAWCD will notify THDWID of the delivery schedule for the following calendar year. This schedule may be amended on request no later than 15 days before the change is to become effective. CAWCD will respond within 10 days after the request is made.
- F. No month's delivery can exceed 11 percent of the THDWID's maximum entitlement (71 acre-feet) unless agreed to by the CAWCD in advance
- G. In the event the CAWCD cannot deliver the amount of water the THDWID Board deems needed for normal use, the Board shall implement the Water Conservation Mandatory Actions. The Board of Directors will determine whether to use banked water.

2.8.2 Orders from City of Scottsdale (COS)

- A. On or before September 1 of each year, THDWID will notify COS of the amount in whole acre-feet of CAP water THDWID's intends to order from CAWCD for delivery to COS.
- B. COS will invoice THDWID each month based on its reading of the COS water meter at the entry point to the THDWID system. These meter readings and the amount of water reported to CAP as delivered to THDWID will be emailed to THDWID monthly by a COS Financial Specialist. Although these readings are made to the nearest hundred gallons, COS reports to CAP the water delivered to THDWID each month rounded the nearest whole acre foot. This discrepancy accumulates over the calendar year and must be reconciled in December (see Section 2.8.4). THDWID will maintain an updated accounting of these data throughout the calendar year.

2.8.3 Orders from Roosevelt Water Conservation District (RWCD)

- A. On or before August 1 of each year, THDWID must determine if it will have water delivered by CAP to RWCD during the following year and must notify RWCD of the quantity in whole acre-feet.
- B. RWCD will notify THDWID on or before September 15 of the quantity it agrees to receive, and by September 20 will provide THDWID with a copy of the monthly delivery schedule showing when it will take the water.
- C. On or before September 30, THDWID must submit an order in whole acre-feet and the delivery schedule to CAWCD for the CAP water to be delivered to RWCD the following year.
- D. THDWID can reduce or discontinue deliveries of its CAP water to RWCD upon providing written notice 15 days in advance if: A) CAWCD notifies THDWID that it will no longer award Long Term Storage Credits for water delivered to RWCD; or B) CAWCD notifies THDWID that the amount of CAP water made available to THDWID has been or will be reduced.

2.8.4 Reconciliation of Water Orders in December Each Year

- A. Because COS reports monthly water delivered to THDWID by rounded its meter readings to the nearest whole acre foot, the amount reported to CAP may be less than

actually delivered to THDWID if it is rounded down or greater if it is rounded up. This discrepancy accumulates over the calendar year and must be reconciled in December of each year to ensure that CAP's accounting of the amounts of THDWID's water allocated to COS and to RWCD add up to the total entitlement of 71 acre-feet. Otherwise, the complete entitlement may not be used (at least on paper) or the paper accounting may exceed THDWID's entitlement for the year. Note that RWCD will most likely have already withdrawn and utilized the water order submitted by THDWID for that year.

- B. THDWID must contact the COS Financial Specialist no later than December 7 to confirm the total amount of water in whole acre-feet reported to CAP as having been delivered to THDWID during January through November.
- C. THDWID must then project its use in December to the nearest whole acre-foot, erring on the high side, in order to estimate the total water delivery during that calendar year to THDWID, as accounted by CAP.
 - a. If the total use reported by COS from January through November plus the projected use through December is *less than* 71 acre-feet, THDWID should contact RWCD and CAP no later than December 15 to have the difference delivered to RWCD for additional water banking in December of the same calendar year. This procedure will result in maximum use of THDWID's entitlement.
 - b. If the total use reported by COS from January through November plus the projected use through December is *greater than* 71 acre-feet, THDWID should contact CAP and RWCD no later than December 15 to have the overdraft acknowledged and arrange to buy the overage from CAP at the non-contract rate during the following year after all water accounting for the year in question is completed.

3.0 FINANCIAL PROCEDURES

A general ledger will be maintained to account for all THDWID economic activity.

3.1 ACCOUNTING BASIS

- A. Accounting Principles: Generally accepted governmental accounting principles and/or Federal Standards shall be used as guidelines for the THDWID.
- B. Fiscal Period: The fiscal period shall begin January 1 and shall end December 31.

3.2 RECORDATION

- A. Receipt of Funds: All funds received will be accounted for with records that contain, but not be limited to, the following information:
 - 1. Date of each receipt of funds
 - 2. Source
 - 3. Amount
 - 4. Nature
- B. Expenditure / Transfer / Investment of Funds: All funds, expended, transferred, or invested, will be accounted for with records that contain, but shall not be limited to, the following information:
 - 1. Nature
 - 2. Date
 - 3. Amount
 - 4. Supporting documents
 - 5. Approval of the Treasurer and/or other Board member
 - 6. The Treasurer may authorize the Accounting Firm to pay certain recurring bills upon receipt. If so, he will review them after payment.

- C. Purchases of Equipment, Materials and Services; Competitive Bidding: The Board has the authority to purchase equipment, materials, and services that are necessary for the operation and maintenance of the THDWID and its water system. Before ordering an improvement that will result in an assessment against one or more lots within the THDWID, the Board shall meet all legal requirements, hold a public hearing with affected parties and have attendees vote to determine whether to move forward with a resolution. The Board may decide to follow a similar process for large purchases that require THDWID to borrow monies to finance the purchase.

All purchases of equipment, materials, and services made by the THDWID having an estimated cost in excess of \$20,000 per transaction shall be based on competitive bids.

The Superintendent is authorized to make any single purchase or group of related expenditures up to and including \$500 if it does not exceed current budget limits. Unless it is deemed an “emergency” situation, expenditures greater than this amount must have prior Board approval. An emergency includes any condition that poses an imminent threat to the security, quantity, chemical quality, or operation of the Tonto Hills water supply.

All invoices and expense reimbursement reports will be checked and verified for accuracy, bear written approval to pay and be filed as back-up documentation.

- D. Invoices: All expenditures or expense reimbursement reports will be accounted for by invoices that will be attached to disbursement remittance advices, dated, and contain pertinent information for audit trail to Job/Project or stock.
- E. Inventory: The Superintendent will maintain an inventory of tools, spare meters, and equipment. A physical count shall be made at least annually as directed by the Board and be reconciled to the General Ledger by the Accounting Firm.
- F. Record Retention: A system of backup recordation and retention will be instituted by the Board and/or Accounting Firm, as deemed fiscally responsible and meeting all stipulations of applicable laws. The THDWID will adopt a records retention schedule in compliance with applicable State Law.

3.3 BUDGETS

- A. Budgets will be prepared annually and adopted by the Board.
- B. General Fund Budget: The General Fund Budget will cover operating expense items, identified by function, and the anticipated operating revenue (income) or borrowings to fund the proposed expenditures.

- C. Capital Improvements Budget: Any project that will increase the original value of the system will be budgeted in a separate budget for capital improvement. The Capital Improvement Budget will be budgeted by project or job. Each approved project or job may be budgeted to be implemented by staff or may be contracted, as determined by the Board in the budget process. Routine repair, maintenance and operational costs will be budgeted in the General Fund Budget.

- D. Financial Reserves: The THDWID will maintain financial reserves for litigation and for emergency repairs. The Board will set the amounts of these reserves annually as part of the budget approval process. An emergency is any situation that is an acute risk to our ability to deliver potable water. An emergency includes any condition that poses an imminent threat to the security, quantity, chemical quality, or operation of the Tonto Hills water supply. Reserve monies must be replenished as they are spent. Emergency repair monies can be authorized by the Superintendent up to his spending limits; additional monies must be approved by two members of the Board.

3.4 ANNUAL REPORT

The THDWID may hold an annual meeting of all members and may issue an annual report to Members. Financial Statements and budgets may be included.

3.5 AUDIT OR FINANCIAL REVIEW

- A. The THDWID will comply with any Arizona State Statutes and Federal Single Audit requirements for periods in which Federally-funded loans are outstanding. Note: The Board does not believe THDWID has any such requirements as of the date of this document.

- B. A committee of non-Board members will conduct a bi-annual Operations and Financial Review. They will report their findings to the Board.

3.6 CONTRACTS

The person authorized to sign contracts shall be the Chairperson of the Board or his/her designee.

3.7 INSURANCE

Insurance, as may be deemed necessary by the Board or required by contract will be purchased as an appropriate expense. Indemnification, as provided in state law, will be taken into consideration. Insurance coverage is meant to protect the THDWID's funds, the THDWID's assets, and the Members of the Board and persons working on their behalf.

- A. In accordance with the above, THDWID will carry General Liability Insurance in the amount of \$1MM per occurrence/\$3MM aggregate plus a separate \$5MM umbrella policy.
- B. Bids for coverage will be issued bi-annually
- C. The insurance carrier must have an A+ Best rating
- D. THDWID will carry above ground property insurance. Note: The underground assets of THDWID are not insurable.

3.8 TIME CARDS

All Contracted Employees to be paid must submit all employment documentation (Form W-4, Form I-9, Form A-4) with 2 forms of approved ID and they must be submitted within 7 days of hired date to the Treasurer. See **Appendix O** for more detail on Employee Payment. The Employee Handbook is given in **Appendix P**. Once the requirements above have been completed, in order to be paid in a timely manner, the following procedures must be followed:

- A. Contract staff must complete an activity log with a brief description of the tasks performed for any flat rate as well as additional charged hours.
- B. Contract staff must complete and sign a time card for hours not covered by the flat rate.
- C. Contract staff must submit the time card and activity logs to the designated Board representative.
- D. After approval by the designated Board representative, the contract staff must submit the time card to the Personnel Firm by the 1st and 15th of each month.

3.9 MAINTENANCE, STORAGE, AND BACKUP OF RECORDS

The goal of the record maintenance, storage, and back-up procedures is to minimized to the extent possible the retention of paper documents, and to maximize the amount of records retained and backed up in digital format.

Electronic of most THDWID records will be kept in two physical locations, as described by category below, as well as on a Cloud based system. Information will be kept in a digital electronic format whenever possible.

3.9.1 Record Retention

- A. Permanent retention (all documents will be kept at two locations, one of which is outside of Tonto Hills)
 - 1. General Ledger
 - 2. Annual financial statements, including independent audit or review thereof, if any
 - 3. CAP, City of Scottsdale, WIFA and THUC contracts, agreements and amendments thereto
 - 4. Approved agendas and minutes of Board and Member meetings, including materials referred to therein and adopted Board resolutions
 - 5. Sales tax payment documentation
 - 6. Documentation of THDWID formation
 - 7. Policies and Procedures adopted, including a copy of each major dated revision
 - 8. Assessment documentation, including payments, liens and lien releases
 - 9. Borrowings
 - 10. Water rate tables
 - 11. Auction documentation
 - 12. Applications for water service, until disposed 3 years after service cessation
 - 13. Copies of all deeds obtained

- B. Six years (by Clerk or Accounting Firm at two locations, one of which is outside of Tonto Hills)
 - 1. Operational audit reports

2. Documents pertaining to litigation or claims made or threatened
 3. Supporting documentation for major transactions involving \$10,000 or more
 4. Expense reports
 5. Approved operating and capital budgets
 6. Annual, quarterly and monthly P&L and balance sheets
 7. Customer water service and assessment invoices
 8. Contracts and purchase orders with supporting information; e.g. bids, quotes, etc.
 9. Timekeeping records
 10. Vendor invoices, including payroll records from personnel agency
 11. Accident reports
 12. Governmental inspection reports
 13. Internal inspection reports, including those prepared by consultants
 14. Insurance policies
 15. Correspondence with WIFA, ADWR, COS, CAP, BOR, Maricopa County, ADEQ and other governmental entities
 16. Bank account statements and reconciliations
- C. Three years (by Accounting Firm or Clerk)
1. Bank deposit slips and copies of all checks received
 2. Other cancelled disbursement checks
 3. Depreciation records
 4. Inventory lists
 5. Newsletters
 6. General correspondence
- D. One Year (by Accounting Firm or Clerk)
1. Records related to water shut-offs.

3.9.2 Record Back-up

Following are record back-up requirements:

- A. The goal of the record back-up procedures is to minimize to the extent possible the retention of paper documents, and to maximize the amount of records retained and backed up in digital format.
- B. The General Ledger will be maintained by the Treasurer and by the Accounting Firm
- C. All information retained pursuant to this policy on the Treasurer's personal computer will be duplicated on a backup drive, CD or other such electronic storage device quarterly and delivered to the Clerk.
- D. All paper documents retained by the Clerk pursuant to this policy will be scanned to an electronic storage device quarterly and delivered to the Treasurer.
- E. All paper documents retained by the Treasurer pursuant to this policy will be scanned to an electronic storage device quarterly and maintained by the Clerk.
- F. Approved Board and Member meeting minutes for the past 3 years, current Policies and Procedures, blank applications for water service, newsletters, the current fee schedule, annual Water Consumer Confidence Reports for the past 3 years, and other similarly important documents will be posted to the web site following Board approval.
- G. All documents pursuant to this policy held by others will be scanned to an electronic storage device quarterly and delivered to the Clerk.
- H. Electronic backup records are to be retained by the Clerk and Secretary. All such records are also backed up on a Cloud-based system. Such records should be refreshed quarterly.

4.0 OPERATIONAL PROCEDURES

THDWID shall construct all facilities in accordance with the guidelines established by the properly constituted authority.

4.1 CONSTRUCTION STANDARDS

- A. All mains and distribution lines to be constructed either by the THDWID, a THDWID Member, or its agents or assignees shall comply with and conform to the Uniform Plumbing Code in effect at the time of construction.
- B. All Customer's new or replacement Authorized Water Service Connections must be installed according to Arizona Department of Water Quality (ADEQ) specifications. All THDWID Members who have or request connection to the THDWID's system shall install and maintain a private shut-off valve. The THDWID shall provide a like valve on the THDWID's side of such meter. The THDWID also recommends the installation of one or more pressure reducing valves (PRVs) on the Customer's side of the meter at the Customer's expense to regulate water pressure and prevent over-pressure damage to appliances and other equipment. The THDWID shall not be responsible for the effects of high water pressure on the Customer's side of the meter. The THDWID requires backflow prevention devices; see **Appendix M** for details
- C. An authorized THDWID agent shall install water meters on all Parcels having Authorized Water Service Connections. Said meters will be installed on the THDWID's service line at said Parcels and, when practicable, located within the public right-of-way. THDWID will supervise all water meter installations. All water meters are owned and maintained by the THDWID.

4.1.1 Riser Pipes on Water Distribution System

- A. More than a dozen red, valve riser pipes have been installed in the THDWID water distribution system to provide emergency and training water to authorized fire-fighting personnel. The THDWID Superintendent can provide building contractors access to water for construction purposes at designated standpipes in the system, if construction requires higher flow rates than those achievable through the property water meter. The Superintendent will ensure water use accounting at the standpipes using a temporary meter.

- B. No representation is made by the THDWID that the riser pipes are a sufficient source of water to contain or effectively fight any wildfire or structural fire. The source of water is a relatively small storage tank that serves the Tonto Hills community by gravity flow only and does not meet the standard requirements for a structural fire-fighting water source. However, the riser pipes are made available to authorized fire-fighting personnel in the hope of providing an initial, temporary source of water for fire-fighting purposes at the critical time when a small fire can still be prevented from becoming a large fire.
- C. The riser pipes are not to be used by any THDWID Member or any member of the public unless they are a THDWID representative or part of the Tonto Hills Volunteer Fire Department (THVFD), Rural Metro, City of Scottsdale Fire Department, or other trained fire-fighting organization or construction company authorized by the THDWID or THVFD to access the riser pipes. Vandalizing or tampering with the riser pipes by unauthorized personnel is illegal and violators will be prosecuted to the full extent of the law. All users must abide by the instructions on the pipes to “Gravity Fill Only, No Pumping, Turn On/Off Slowly”.

4.2 SHUT-DOWN PROCEDURE

The THDWID will make reasonable provisions to meet emergencies resulting from failure of service, and will issue instructions to its employees and contractors covering procedures to be followed in the event of emergency in order to prevent or mitigate interruptions or impairment of service.

4.2.1 Shut-Down Procedure Purpose

- A. Emergency shutdowns most often involve customer water line, system pipeline or valve failures. The THDWID developed this emergency procedure to respond to these emergency scenarios. THDWID Superintendent will provide emergency shutdown training to all THDWID contractors, employees, and Board members. This will permit the immediate response to the emergency and the shutdown of the affected pipeline to minimize water loss, flood damage, and restore service as quickly as possible. The emergency shutdown procedures are intended to:
 - 1. Identify service and network connections
 - 2. Determine the extent of service interruption
 - 3. Help to avoid unintentional shutdowns

5. Reduces damage during emergency situations
6. Identify customer areas to be notified. See section 2.7.4 for notification procedures.

4.2.2 Shut-Down Steps

- A. Identify location of water line break
- B. Obtain water valve shut-off key from the Superintendent / Storage location
- C. Locate and uncover water valves that isolate the line break
- D. Slowly close the water valve below the elevation in the line break then slowly close the valve above the line break
- E. Contact Superintendent to coordinate repairs

4.3 BACKFLOW PREVENTION

- A. Following is THDWID policy in keeping with International Residential Code section P2902.1: *“A potable water supply system shall be designed and installed as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply. Connections shall not be made to a potable water supply in a manner that could contaminate the water supply or provide cross connection between the supply and a source of contamination unless an approved backflow prevention device is provided. Cross-connection between an individual water supply and a potable water supply shall be prohibited.”*
 1. Cross-connections on Customers’ properties pose a threat to a public water system because they provide potential pathways for backflow of non-potable or contaminated water from a Customer’s water pipes back into the water mainlines whenever water pressure in the mainlines is less than pressure in the Customer’s pipes and/or when there is a gravity drop from the Customer’s property to the mainlines such that siphoning may occur. These conditions can occur when supply of water to the mainlines is decreased or interrupted during conduct of water system maintenance or interruption of water supply from the water systems source (City of Scottsdale in THDWID’s case). Cross-connections are likely to occur wherever there are water features such as pools, landscape watering systems, fountains, and automatic filling horse troughs. Cross-connections are

also created when a hose bib is connected to a water container by a hose and the discharge end of the hose is immersed in the container such that no air gap occurs. Cross-connections can occur between gray water systems and potable water pipes if mistakes are made with plumbing connections.

2. In addition, the THDWID has adopted a policy of *mandatory Reduced Pressure Principle (RP) Backflow Prevention Assemblies for all parcels in the District zoned commercial* to be installed and tested prior to occupancy. Requirements for these devices are described in bullet #6 below.
 3. THDWID will install a check valve with new water meters as a precaution; however, this action does not relieve Customer from any backflow prevention requirements for its property. THDWID may, at its sole discretion, install check valves at existing water meters.
- B. The THDWID has a backflow prevention policy to: 1) protect the THDWID's public water supply from the possibility of contamination or pollution by isolating within the user's system such contaminant or pollutant that could backflow into the public water supply; and 2) allow for the monitoring and enforcement of the backflow prevention program.
1. The Customer and its agents, family, or tenants shall not allow any pollutants and contaminants to enter the public potable water system from the point of delivery to the public potable water system. The Customer, at its own expense, shall install, operate, test, and maintain approved backflow prevention assemblies in accordance with manufacturers' specifications whenever use or features of the Customer's property pose a potential threat to the THDWID water system in the event of a backflow occurrence. Specifications for all backflow prevention devices to be installed by or on behalf of a Customer shall be submitted to the THDWID for approval prior to installation. When the device is installed, the Customer shall have it tested by a certified backflow tester as required by R18-4-215 and shall provide the results together with the information in paragraph G of R18-4-215 to THDWID for approval. Acceptable certified backflow testers are listed by the City of Scottsdale on its web site at www.scottsdaleaz.gov/water/developer-services. The device shall be tested annually thereafter using the requirements in paragraph F of R18-4-215 and test results shall be submitted to THDWID for approval.
 2. The Customer shall provide approved backflow prevention assemblies for hose bibs, pools, fountains, automatic filling horse troughs and any other source that could result in backflow. Pressure vacuum breakers must be installed on all hose bibs used to fill water reservoirs, such as horse troughs, pools, etc., to prevent backflow. Customer shall report to the THDWID any conditions that require backflow prevention devices and shall submit specifications for the appropriate devices to the THDWID for approval. Scottsdale Revised Code of Ordinances

49-61 and 49-62 lists approved backflow assemblies for various types of conditions. A list is also included in Table 2902.3 of the International Residential Code for one and two family dwellings. Scottsdale Revised Code of Ordinances 49-63 and R18-4-215 describe requirements for proper installation and location. See **Appendix M**.

3. The Customer's Contractor shall use a hose connection backflow preventer if attaching a supply hose to a THDWID water supply standpipe during construction. Any use of a THDWID standpipe must be preapproved and metered by the THDWID
4. Service of water to any premises may be discontinued by the THDWID: 1) if a backflow preventive assembly required by this policy is not installed, tested, and maintained; 2) if it has been found that a backflow preventive assembly has been removed or bypassed; or 3) if a cross-connection problem exists on the premises. Service will not be restored until such conditions or defects are corrected. If the THDWID determines a Customer's backflow prevention assembly does not meet current standards, the Customer shall retrofit its assembly so that it will meet current standards.
5. **For all parcels zoned commercial**, a water meter may be installed by THDWID for initial construction purposes after the water service application process is completed. However, prior to occupancy, the parcel owner shall install a backflow prevention assembly in accordance with R18-4-215 and these Policies and Procedures. Failure to install the device prior to occupancy may result in immediate termination of water service. The device shall be installed as close as practicable to the service connection (the water meter) and on the customer side of the meter. The backflow prevention device shall be a **Reduced Pressure Principle (RP) Backflow Prevention Assembly**, which is a type of backflow prevention device used to protect water supplies from contamination. RPs may also be known as **reduced pressure zone devices (RPZD, RPZ, or RPZ valve)**, **reduced pressure zone assemblies (RPZA)**, or **reduced pressure principle assembly (RPPA)**. It is recommended that the parcel owner employ a qualified plumbing contractor to help select the device in consultation with the THDWID. When the device is installed, parcel owner shall have it tested by a certified backflow tester as required by R18-4-215 and shall provide the results together with the information in paragraph G of R18-4-215 to THDWID for approval. The device shall be tested annually thereafter using the requirements in paragraph F of R18-4-215 and test results shall be submitted to THDWID for approval. Acceptable certified backflow testers are listed by the City of Scottsdale on its web site at www.scottsdaleaz.gov/water/developer-services.

4.4 MAIN EXTENSIONS AND SERVICE CONNECTIONS

The THDWID does not anticipate additional Main Extensions. However, if additional extensions are considered in the future, THDWID will develop policies and procedures based on current laws and regulations.

4.5 CONFINED SPACE

All safety precautions and procedures including, but not limited to county, state and Federal regulations shall be observed by any Contractors, their helpers, or any other people involved in THDWID operations.

4.5.1 Confined Space Program Purpose

The THDWID has instituted a Confined Space Program. See **Appendix N** for the full document. The purpose of this program is to identify and evaluate all work areas that are potentially considered “Confined Spaces”. It contains the policies and procedures required to identify and manage confined spaces and maintain regulatory compliance. Implementation of the provisions within this program is the responsibility of all who work in and around designated confined spaces. This program also covers entries made by Contractors or utility workers who are not employees. Refer to this document for correct procedures concerning confined spaces.

4.5.2 Confined Space Procedure

A. Assessment/Signage.

An assessment of all THDWID work areas will be made annually as possibly qualifying as confined spaces and therefore requiring application of the THDWID confined space program. When a possible confined space area has been identified, a CONFINED SPACE - ASSESSMENT WORKSHEET shall be completed and kept for program records. If the area is identified as a confined space:

1. The area shall be secured by an appropriate secure barrier (locks or other methods).

2. Identifying signage shall be maintained until area is deemed not a confined space. The signage shall stipulate that THDWID has evaluated this site and as a confined space, no entry is permitted without THDWID re-evaluation and completion of THDWID's confined space permit.
3. Copies of all permits issued shall be kept in program records.

B. Superintendent Responsibilities

The designated THDWID Superintendent shall:

1. Identify his/her personnel who will enter confined spaces.
2. Verify that training on confined space hazards and entry procedures are current.
3. Identify and report work areas that have the potential to be confined spaces. A list of spaces shall be maintained.
4. Classify confined spaces as either "permit required" or "non-permit required"
5. Prevent unauthorized entry into spaces.
6. Provide instruction to personnel on the proper use of equipment required for confined space entry.
7. Maintain equipment that is used to enter confined spaces
8. Conduct annual work area audits to determine compliance with confined space entry procedures.
9. Maintain records of equipment maintenance and employee training.
10. Conduct pre-entry briefing to inform entrants of the possible hazards that may be encountered in a confined space.

C. Staff Responsibilities

The designated staff who enter confined spaces shall:

1. Obtain the required training before entering a confined space.
2. Follow the confined space entry procedures and any additional instructions given by their supervisor.
3. Understand emergency procedures for confined space entry.
4. Not enter a confined space that is suspected of having a hazardous atmosphere, even to rescue a fellow employee.

D. Contractor Responsibilities

The designated contractors who enter confined spaces shall:

1. Provide THDWID with their written company confined space policy and procedures including training documentation.
2. Coordinate entry operations with the THDWID Superintendent
3. Not allow their employees or subcontractors to enter a confined space without having received training and instruction in their individual duties.
4. Obtain any available information regarding hazards or necessary entry procedures from the Superintendent.
5. Coordinate entry operations with THDWID Superintendent when both THDWID and contractor personnel will be working in or near confined space.

Note: See **Appendix N** for more detailed information.

4.6 CONTRACTORS FOR THDWID

4.6.1 Certified Contractor

- A. Prior to a Contractor receiving a Request for Proposal, making a bid, being awarded a contract, or beginning Work, the Superintendent must certify the Contractor. The following steps must be taken to certify a Contractor:
 1. Obtain the Contractor's Arizona State Contractors' Classifications and License numbers.
 2. Ask whether the Contractor has done business under another name and/or license number.
 3. Check with the Arizona Registrar of Contractors for complaints under all current and former names and license numbers.
 4. Check professional certifications; e.g. certified water operator certification level and grade.
 5. Check the Better Business Bureau for complaints under all current and former names and license numbers.
 6. Obtain proof of insurance coverage. See section 4.6.9 for insurance coverage amount requirements.
 7. Request certification of general liability and workman's compensation insurance.
 8. Obtain a list of recent customers and suppliers.

9. Contact recent customers and ask a series of specific questions on price, quality, reliability and suggestions for improvement.
10. Contact recent suppliers regarding credit history and high/low volumes
11. Obtain signed Equal Employment Opportunity Certification form
12. Review the findings with the Chairperson or his designate.
13. Notify the Contractor of his certification or lack thereof.
14. Re-certify the Contractor annually.

4.6.2 Non-Certified Contractor

The Board may choose to use a non-certified contractor for work estimated as costing less than \$10,000. A non-certified contractor is one who meets the certification requirements of a certified contractor with the exception of having an Arizona State Contractors' Classification and License. In vetting a non-certified contractor, the Superintendent will:

- A. Obtain the contractor's business license
- B. Determine professional certifications; e.g. certified water operator certification level
- C. Check Angie's List
- D. Follow the steps outlined in the Certified operator section with the exceptions of the step 1 (obtaining Contractors' License) and step 3 (checking with the Registrar of Contractors).
- E. If the non-certified contractor does not have Workmen's Compensation insurance, the Board can decide to employ him if he signs a Sole Proprietor Waiver/single Member LLC Waiver.

4.6.3 Proposals, Bids and Agreements

- A. If the anticipated contract amount is greater than \$10,000, the following conditions must be met and language to that effect must be in the contract. The Board can make exceptions on a case-by-case basis.
- B. Contractor's contract or proposal shall state bidder's Arizona State Contractor's Classification and License number as evidence that it is qualified to contract for the Work to be performed.

- C. Further, the bidder shall provide its Federal Tax Identification Number and business license on the contract or proposal.
- D. Bid Documents, including Plans and Specifications may be provided to the Contractor as an accommodation. Contractor should warrant that it has made at its own expense such surveys and investigations as it may deem necessary for performance of the Work at Contractor's bid price in accordance with the terms of the Contract Documents.
- E. Contractor should warrant that it has made whatever borings or excavations are necessary to fully acquaint itself with conditions that may affect the Cost of the Work. Failure to make such borings or excavations, or any borings or excavations made that do not provide a complete understanding of the conditions encountered, shall not relieve Contractor of the responsibility for carrying out all the Work to completion at the Contract Price in accordance with the terms of the Contract Documents. Where the results of any tests, borings, or excavations are shown on the Plans, the information is not guaranteed to represent any conditions other than those existing at the test/boring/excavation location at the time indicated, and Contractor must satisfy itself as to the character of materials and conditions that may be encountered.
- F. By executing the Agreement, Contractor should warrant that it has visited the Work site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with the requirements of the Contract Documents.
- G. Unless otherwise provided in the Contract Documents, Contractor shall provide and pay for labor, materials, equipment, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities, transportation, taxes, services and incidentals necessary for the proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Contractor shall furnish all plant, materials, tools, labor, and all appliances and appurtenances called for by the Contract Documents free from all claims, liens and charges whatsoever.
- H. Contractor shall furnish, erect, maintain, and remove all required construction, plant, and temporary works. Contractor alone shall be responsible for the safety, efficiency, and adequacy of its plant, appliances, and methods, and for all damages that may result from their failure or their improper construction, maintenance, or operation.
- I. Contractor shall not be relieved of obligations to perform the work in accordance with the Contract Documents either by activities or duties of THDWID in its administration of the Contract Documents, or by tests, inspections or approvals required or performed by persons other than Contractor.

- J. Contractor shall be responsible for inspection of portions of the work already performed to determine that such portions are in proper condition to receive subsequent work.

4.6.4 Warranties

- A. Contractor must covenant, contract, and agree with THDWID, for and in consideration of THDWID's covenants in the Contract Documents, and under penalty expressed in the bonds delivered pursuant to the Contract Documents, to do and perform, in good workmanlike manner and in accordance with industry standards or better, all Work and furnish all supplies and materials, machinery, equipment, facilities and means necessary or proper to perform and complete all the Work required by the Contract Documents, within the time specified, in accordance with the provisions of the Contract Documents so that the completed Work is functional for its intended purpose and complies with all laws, regulations, ordinances and conditions applicable to its construction and use.
- B. Contractor must warrant that all materials and equipment furnished under the Contract will be of good quality and new, unless otherwise required or permitted by the Contract Documents and that the Work will conform to the requirements of the Contract Documents. If required by THDWID, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment, along with a certification that the material and equipment was purchased new for the Project.
- C. Contractor must warrant and guarantee the equipment, materials, and workmanship furnished under the Contract Documents for a period of two (2) years from the date of Owner's certification of Completion of the Work "Guarantee Period"). In the event any repairs and replacements are performed during the Guarantee Period, the warranty and guarantee for such repair or replacement shall be extended for a period of one year after THDWID's acceptance of such repairs and replacements. Contractor agrees to correct without delay and at its own expense any failure of any part of its Work due to faulty materials, construction or installation or to the failure of any equipment to successfully perform in accordance with the terms of the Contract Documents, and further shall be responsible for correcting any damage to any part of the Work caused by such fault or failure. THDWID will give Contractor written notice of observed defects. If Contractor, after notice, fails to proceed to comply with the terms of this guarantee within fifteen (15) days of receipt of such notice, THDWID may have the Work corrected and Contractor and its Surety shall be liable for all expenses incurred. This section shall not prohibit or limit any rights of THDWID under any other warranties or guarantees provided by law or any other agreements.

4.6.5 Use and Maintenance of Materials, Equipment and Premises

- A. All machinery and equipment and other physical hazards shall be guarded in accordance with applicable safety manuals and in accordance with federal, state and local laws, regulations and ordinances applicable to such safety measures. Contractor shall confine its equipment and the storage of materials and equipment to areas permitted by law, ordinances, permits, and the requirements of the Contract Documents, and shall not unreasonably encumber the premises with materials or equipment.
- B. Contractor shall not load nor permit any part of existing structures to be loaded with weights or loadings that will endanger or damage the structures, nor will Contractor subject any part of the Work to stresses or pressures that will endanger it. CONTRACTOR shall repair or replace existing structures damaged by its activities at its sole expense and to the satisfaction of the owner of such structures.
- C. Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract Documents. Upon Completion of the Work Contractor shall remove from and about the Project waste materials, rubbish, Contractor's tools, construction equipment, machinery and surplus materials.
- D. If Contractor fails to clean up as provided in the Contract Documents, THDWID may do so and the cost thereof shall be charged to Contractor.

4.6.6 THDWID's Use of Engineer

- A. THDWID may, at its sole discretion, employ or retain an Engineer to act as its representative in connection with the Work. The duties and responsibilities and the limitations of authority of Engineer as THDWID's representative will be set forth in a written agreement between THDWID and Engineer.
- B. Under no circumstances shall Engineer's authority to act granted by THDWID or any decision made by Engineer in good faith either to exercise or not exercise such authority give rise to any duty or responsibility by Engineer to, or for the acts or omissions of, Contractor, any Subcontractor, or any of their agents or employees or any other person performing any of the Work. Engineer will not be responsible for Contractor's means, methods, techniques, or procedures of construction, or the safety precautions and programs incident thereto.

- C. Under no circumstances shall Engineer's authority to act granted by THDWID relieve Contractor of its obligation to perform the Work in accordance with the Contract Documents or otherwise fulfill its responsibilities under the Contract Documents.

4.6.7 Contractor's Supervision and Staffing

- A. Contractor shall supervise and direct the Work efficiently using its best skill and attention.
- B. Contractor shall keep on the site at all times during the Work a superintendent and/or supervisory staff, all satisfactory to THDWID. The superintendent or supervisory staff shall not be replaced without the consent of THDWID. The superintendent or supervisory staff will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent or supervisory staff shall be as binding as if given to Contractor.
- C. Contractor shall provide competent, suitably qualified personnel to perform the Work. Contractor shall not employ or permit subcontractors to employ unfit persons or persons not skilled in the tasks assigned to them. Contractor will at all times maintain strict discipline and order among its employees and other persons.
- D. The parties to this Agreement intend that the relationship between them created by the Contract Documents is that of the THDWID to independent contractor. No agent, employee, or servant of Contractor shall be or shall be deemed to be the employee, agent, or servant of THDWID. None of the benefits provided by THDWID to its employees, including, but not limited to compensation, insurance and unemployment insurance are available from THDWID to employees, agents or servants of Contractor.
- E. Contractor will be solely and entirely responsible for its acts or omissions and for the acts or omissions of its agents, employees, and servants, Subcontractors and their employees and agents, and other persons performing portions of the Work.
- F. CONTRACTOR shall not employ any independent subcontractors to assist in the performance of CONTRACTOR's services without the prior written consent of THDWID. CONTRACTOR agrees that it is fully responsible to THDWID for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by them. CONTRACTOR agrees that it is fully responsible to THDWID for the acts and omissions of persons directly employed by CONTRACTOR. CONTRACTOR shall certify that all subcontractors have the necessary permits and licenses for the services proposed, and that all subcontractor employees working at or

near the site meet the conditions of medical fitness, training, and experience required of CONTRACTOR personnel by THDWID.

4.6.8 Test and Inspections

- A. Tests, inspections and approvals of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction over the Project shall be made by Contractor or THDWID, as specified in the Contract Documents. Tests or inspections to be conducted by Contractor pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work. Unless otherwise provided, Contractor shall make arrangements with an independent testing laboratory or entity acceptable to THDWID, or with the appropriate public authority, for any tests, inspections and approvals to be arranged by Contractor and shall bear all related costs of tests, inspections and approvals. Contractor shall give THDWID timely notice of when and where tests and inspections are to be made so THDWID may observe such procedures.
- B. If THDWID or public authorities having jurisdiction over the Project determine that portions of the Work require additional testing, inspection or approval, THDWID shall arrange for such additional testing or inspections or may instruct Contractor in writing to make arrangements for such additional testing, inspection or approval by an entity acceptable to THDWID. If Contractor is to arrange for additional testing or inspection, Contractor shall give timely notice to THDWID of when and where tests and inspections are to be made so THDWID may observe such procedures.
- C. Contractor shall bear such costs of any additional testing, inspection or approval, where arranged by THDWID or CONTRACTOR at THDWID's instruction.
- D. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by Contractor and promptly delivered to THDWID.

4.6.9 Contractor Insurance Requirements

- A. Required: On the Commencement Date of any contractual Agreement between the THDWID and a Contractor, and at all times thereafter, Contractors conducting work for the THDWID shall obtain and cause to be in force and effect the following insurance:

1. Commercial General Liability: Commercial general liability ("CGL") insurance with a limit of not less than U.S. One Million Dollars (\$1,000,000) for each occurrence, not less than U.S. One Million Dollars (\$1,000,000) Personal Injury and Advertising Injury, not less than U.S. Two Million Dollars (\$2,000,000) Products/Completed, and a General Aggregate Limit of not less than U.S. Two Million Dollars (\$2,000,000) per policy year.
 - a) The CGL policy shall be written on ISO occurrence from CG 00 01 (10/93) or a substitute form providing equivalent coverage shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury, bodily injury, advertising injury and liability assumed under an "insured contract," including this Agreement. The policy shall contain a "separation of insureds" clause.
 - b) The CGL General Aggregate Limit shall apply separately to each project or separate work order.
2. Automobile Liability: Commercial/Business automobile liability insurance with a limit of not less than U.S. One Million Dollars (\$1,000,000) bodily injury each person, not less than U.S. One Million Dollars (\$1,000,000) for each occurrence, and not less than U.S. One Million Dollars (\$1,000,000) property damage or a Combined Single Limit of not less than U.S. One Million Dollars (\$1,000,000) for bodily injury and property damage. Policy must cover any and all owned, hired, and non-owned vehicles assigned to or used in any way in connection with the Permitted Activities, or the exercise of any rights or the discharge of any duties under the contractual Agreement. Without limitation, such insurance shall cover hazards of motor vehicle use for loading and off-loading.
3. Workers' Compensation Insurance: In accordance with Arizona statutory requirements.
4. Employers Liability: With a limit of not less than US \$1,000,000 each accident for bodily injury by accident, U.S. \$1,000,000 disease - policy limit, and U.S. \$1,000,000 each employee for injury by disease.
5. Umbrella Liability: In the event the Contractor does not have coverage with the above minimums, the Contractor must obtain such coverage through an Excess or Umbrella Liability Policy.
 - a) Umbrella limits must be at least U.S. Two Million Dollars (\$2,000,000).
 - b) Umbrella coverage must include as insured all entities that are additional insured on the CGL.
 - c) Umbrella coverage for such additional insured shall apply as primary before any other insurance or self-insurance, including any deductibles, maintained by, or provided to, the additional insured other than the CGL, Auto Liability, and Employers Liability coverage maintained by the Contractor.

6. The THDWID Board may waive these requirements for non-certified contractors in the event that a certified contractor cannot complete required work in a timely manner.

B. Forms of Insurance: All insurance policies shall meet the following requirements:

1. All policies except workers' compensation must name the THDWID, and their agents, employees, officials, officers, directors, commissioners, and representatives ("Additional Insureds") as additional insureds, and coverage for Additional Insureds shall be incorporated into each insurance policy via endorsement. The Policies must use ISO Additional Insurance Endorsement CG 2010 (07/04) and CG 2037 (07/04) or an endorsement providing equivalent coverage to the additional insured. The insurance for the additional insured shall be as broad as the coverage provided for the named insured Contractor. It shall apply as Primary Insurance before any other insurance or self-insurance, including any deductible, maintained by, or provided to the additional insured.
2. All policies must provide the THDWID with thirty (30) days prior notice of any cancellation, reduction or other material change in coverage. In the event any insurance policy required by the contractual Agreement is written on a "claims made" basis, coverage shall extend for two (2) years past the termination of the Agreement as evidenced by the submission of annual Certificates of Insurance to the THDWID and City of Scottsdale.
3. All policies shall require that notices be given to the THDWID as specified in the section herein entitled "NOTICES".
4. The insurer's duty to notify the THDWID of changes in coverage shall not include phrases such as "endeavor to" or "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives."
5. All policies must clearly show by formal endorsement or otherwise that all coverage required by the contractual Agreement is provided.
6. Contractor shall be solely responsible for any self-insurance amount or deductible.

C. Insurance Certificates: Certificates of insurance shall include a provision that such insurance shall not be canceled without at least ten (10) days written notice to THDWID. Updated certificates of insurance shall be delivered to THDWID on an annual basis for contract terms of more than one year. The THDWID shall have no affirmative obligations and Contractor shall not exercise any rights granted under the contractual Agreement prior to evidencing all insurance required by the Agreement by furnishing to the THDWID satisfactory Certificates of Insurance. Certificates must evidence that the policy referenced by the certificate is in full force and effect and that the policy satisfies each requirement of the contractual Agreement applicable

to the policy. For example, certificates must indicate that the THDWID and the other Additional Insureds are additional insureds. All certificates are in addition to the actual policies and endorsements required.

- D. Acceptable Insurers: All insurance policies shall be issued by insurers acceptable to the THDWID. At a minimum, all insurers shall be duly licensed (or qualified unlicensed non-admitted insurer) by the State of Arizona, Department of Insurance, and shall have and maintain an A.M. Best, Inc. rating of A minus or better.
- E. Primary Insurance: The insurance required under the contractual Agreement shall be primary insurance. Any insurance or self-insurance maintained by the THDWID and the City of Scottsdale shall not contribute to the required insurance.
- F. Subcontractor waives all rights against THDWID and their agents, officers, directors, and employees for recovery of damages to the extent these damages are covered by Commercial General Liability, Commercial Umbrella Liability, Business Auto Liability, or Workers Compensation and Employers Liability Insurance maintained per requirements stated above.
- G. Copies of Policies: The THDWID reserves the right to request and to receive, within ten (10) working days, certified copies of any or all of the above policies and/or endorsements. The THDWID shall not be obligated, however, to review same or to advise Contractor of any deficiencies in such policies and endorsements, and such receipt shall not relieve Contractor from, or be deemed a waiver of the THDWID's right to insist on, fulfillment of Contractor's obligations.

4.6.10 Indemnification

- A. General Indemnification. To the fullest extent permitted by law, Contractor hereby indemnifies and holds harmless THDWID and its employees, agents, officers, and consultants (who are in all respects intended third party beneficiaries of Contractor's covenants under the Contract Documents) from and against any and all claims, damages, losses, expenses, charges, fees (including attorneys' fees) and liability arising out of or resulting from the Work, and for all reasonable expenses (including attorneys' fees) and all costs of compromise or settlement which may be incurred by THDWID on account of or arising out of or in connection with any of the foregoing. The foregoing indemnity shall not extend to matters resulting solely from the negligence or willful misconduct of THDWID, in the event that any action or proceeding is brought against THDWID, its employees, agents, officers or consultants arising out of the Contract Documents.

Contractor shall, upon notice from THDWID, resist and defend such action or proceeding on behalf of THDWID, its employees, agents, officers or consultants by

counsel designated by THDWID; provided that failure of THDWID to give such notice shall not relieve Contractor from any of its obligations under this Section unless such failure prejudices defense of such action or proceeding by Contractor. THDWID shall not be liable for any settlement without its consent. All agreements of indemnity hereunder shall survive the delivery and performance of the Contract Documents.

- B. Patent and Royalties Indemnification. Contractor shall pay all royalties and license fees with respect to the Work. Contractor hereby indemnifies and holds harmless THDWID and its employees, agents, officers, consultants (who are in all respects intended third party beneficiaries of Contractor's covenants under the Contract Documents) from any and all claims, damages, losses, expenses, charges, fees (including attorneys' fees) and liability arising from the infringement of any patent, or patent right or because of any royalty, fee or license for the use, arrangement or operation of all tools, machinery, appliances, devices or materials which may be employed by Contractor or furnished by it in fulfillment of the requirements of the Contract Documents. In the event of any claim or action at law on account of the same, it is agreed that THDWID may retain out of the monies that are or that may become due Contractor under the Contract Documents, a sum of money sufficient for protection against loss, the same to be retained until said claims are paid or satisfactorily adjusted.
- C. Health and Safety Indemnification. Contractor shall indemnify and hold harmless THDWID and its employees, officers, agents and consultants (who are in all respects intended third party beneficiaries of Contractor's covenants under the Contract Documents) from and against any and all claims, damages, losses, expenses, charges, fees (including attorneys' fees) and liability arising from any claimed violation of OSHA, any rule or regulation promulgated hereunder, of any state or local laws, ordinances or regulations pertaining to job safety and health arising out of or in any way connected with the performance of the Work or Contractor's performance under the Contract Documents.

4.6.11 Waivers of Claims

- A. Contractor's obligation under the Contract Documents shall include the performance of all the Work in a manner which results in a complete Project ready for operation in its intended manner. Contractor's obligations to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither approval of any progress or final payment, nor the issuance of a list of Work to be completed or corrected, nor any payment by THDWID to Contractor under the Contract Documents nor any use or occupancy of the Work or any part thereof by THDWID,

nor any act of acceptance by THDWID nor any failure to do so, shall constitute an acceptance of Work not in accordance with the Contract Documents.

- B. Acceptance of final payment by Contractor shall constitute a waiver of all claims by Contractor except those claims previously made in writing and identified by Contractor as unsettled at the time of the Final Application for Payment.

4.6.12 Safety and Protection; Emergencies; OSHA Compliance

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. All persons performing the Work, including employees of subcontractors, THDWID, Engineer, and other contractors, and all other persons who may be affected thereby;
 2. All Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, or under care, custody or control of Contractor or subcontractors; other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction; and
 3. Permanent benchmarks, monuments, property markers, and other survey markers, except as otherwise directed, in writing, by a registered Land Surveyor and Engineer.
- B. Contractor shall give notices and comply with all laws, ordinances, codes, orders, rules, and regulations bearing on safety or health of persons or property or their protection from damage, injury or loss.
- C. Contractor shall erect and maintain, as required by existing conditions and performance of the Work, all necessary safeguards for the safety and protection of persons or property, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities and sites.
- D. Contractor shall exercise the utmost care and shall carry on such activities under the supervision of licensed qualified personnel when the use or storage of explosives or other hazardous materials or unusual methods is necessary for the execution of the Work.

- E. Contractor shall promptly remedy all damage, injury or loss to any persons or property caused, directly or indirectly, in whole or in part, by Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.
- F. Contractor shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent or supervising staff unless otherwise designated in writing by Contractor to THDWID.
- G. Contractor, without special instructions or authorization from THDWID, in emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, is obligated to act, at its discretion, to prevent threatened damage, injury or loss and Contractor shall give THDWID prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.
- H. In the event Contractor encounters on the site material reasonably believed to be asbestos or polychlorinated biphenyl (PCB) that has not been rendered harmless, Contractor shall immediately stop Work in the area affected and report the condition to THDWID in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of THDWID and Contractor if in fact the material is asbestos or polychlorinated biphenyl (PCB) and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos or polychlorinated biphenyl (PCB), or when it has been rendered harmless, by written agreement of THDWID and Contractor.
- I. Contractor shall comply in every respect with the Occupational Safety and Health Act of 1970, 29 U.S.C. §651 *et seq.* and all rules and regulations now or hereafter in effect under OSHA, including but not limited to performing the Work in conformance with the General Industry Occupational Safety and Health Standards contained at 29 C.F.R. Part 1910 and health and safety regulations for construction set forth at 29 C.F.R. Part 1926.
- J. Contractor shall work cooperatively with the THDWID Superintendent to ensure compliance with THDWID Policies and Procedures; including those related to Confined space.
- K. Contractor further agrees in the event of a claimed violation of any federal or state safety and health law or regulation arising out of or in any way connected with the performance of Work under the Contract Documents, THDWID may immediately take whatever action is necessary to remedy the claimed violation. All costs or expenses paid or incurred by THDWID in taking such action shall be borne by Contractor, and Contractor agrees to protect, hold harmless and indemnify THDWID against all such costs and expenses.

4.6.13 Proprietary Information and Confidentiality

CONTRACTOR shall consider all reports to be the confidential property of THDWID. THDWID agrees, however, that documents prepared by CONTRACTOR will not be subject to reuse without the written authorization of CONTRACTOR.

CONTRACTOR shall consider all information obtained or learned through the providing of the Work and all information provided by THDWID and drawings, reports, studies, design calculations, specifications, and other documents resulting from CONTRACTOR'S performance of the Work to be proprietary to THDWID. CONTRACTOR shall not publish or disclose such proprietary information for any purpose other than the performance of the services without the prior written authorization of THDWID or unless in response to legal process.

4.6.14 Taxes

CONTRACTOR shall be considered prime in respects to transaction privilege tax and is liable for any and all transaction privilege tax due on any contracting activity. Because THDWID is treated as a municipality for tax purposes, CONTRACTOR shall not charge tax on equipment to THDWID.

4.6.15 Invoicing

Invoices shall be submitted to THDWID for review, approval, and payment, and shall include a detailed breakdown of work performed.

4.6.16 Federal Requirements

CONTRACTOR acknowledges that the services to be rendered by CONTRACTOR pursuant to the Agreement are unique and personal. Accordingly, CONTRACTOR shall not have the right to assign or delegate all or any portion of CONTRACTOR'S rights, duties or obligations under the Agreement without the prior written consent of THDWID, which consent may be withheld in THDWID's sole and absolute discretion. Any assignment or delegation in violation of the foregoing shall be void. THDWID shall have the right to assign all or any portion of its right, title or interest under the Agreement at any time without the prior consent of CONTRACTOR.

4.6.17 Notices

A. Except as otherwise indicated, all notices, waivers, demands, requests and other communications required or permitted by the contractual Agreement (collectively, "Notices") shall be in writing and shall be effective only if sent by one or more of the following methods: (1) personal delivery; (2) generally-recognized overnight commercial courier regularly providing proof of delivery, with delivery charges prepaid or duly charged; or (3) United States registered or certified mail, return-receipt requested, postage prepaid, addressed to the parties at the respective addresses set forth below for THDWID and set forth below Contractor's signature on the Agreement, or to any other address or addresses as either party shall designate from time to time by notice given to the other in the manner provided in this section:

Tonto Hills DWID
11228 E. Hohokam Lane
Cave Creek, Arizona 85331
(Delivery by mail)

Tonto Hills DWID
11420 E Blue Wash Road
Cave Creek, AZ 85331
(Delivery via overnight courier)

B. Notices given or served by personal delivery shall be deemed to have been received upon tender to the respective party. Any notice or communication given or served by mail or commercial courier shall be deemed to have been given or served as of the date of delivery (whether accepted or refused) established by the U.S. Postal Service return-receipt or the overnight courier's proof of delivery, as the case may be.

4.6.18 Equal Employment Opportunity

THDWID requires that all vendors and contractors be EEO certified. In order to be EEO certified, Contractor must fill out a form stating that it does not discriminate against any employee or applicant on the basis of race, religion, color, sex, marital status, national origin, age, mental or physical disability, sexual orientation, gender identity or source of income. Contractor must also take steps to ensure equal opportunity in all aspects of employment. These aspects include, but are not limited to, hiring, promotion, transfer, advertising, layoff, termination, rates of pay, training (including apprenticeship), and terms and conditions of employment.

4.6.19 Regulatory Requirements

In performance of the Work hereunder, CONTRACTOR shall comply with applicable regulatory requirements including federal, state, and local laws, rules, regulations, orders,

codes, criteria, and standards. CONTRACTOR shall procure the permits, certificates, and licenses necessary to allow CONTRACTOR to perform the Work.

4.6.20 Federal Requirements

THDWID may require Contractor to abide by the requirements of E-Verify statutes and the Davis-Bacon Act, if the contract involves federal funding, grants or other federal government involvement.

4.6.21 Severability

In the event any term or provision of the Agreement is held to be invalid or unenforceable, the validity of the other provisions of it shall not be affected, and the Agreement shall be construed and enforced as if it did not contain the particular term or provision held invalid or unenforceable.

4.6.22 Entirety of Agreement

THDWID and CONTRACTOR acknowledge that the contractual Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof and all prior negotiations, written or verbal, are integrated into the Agreement and neither THDWID nor CONTRACTOR have any expectations not set forth in the Agreement. CONTRACTOR acknowledges and agrees that it has read and understands the Agreement and any documents that are referred to in the Agreement. CONTRACTOR further agrees that, to the maximum extent possible, such documents are incorporated herein by this reference, and shall be binding upon CONTRACTOR. The Agreement shall not be construed against THDWID or CONTRACTOR. The Agreement may be modified or amended only by an instrument in writing signed by the parties hereto and shall be governed by the laws of the State of Arizona. In the event of any dispute arising out of or related to the Agreement, venue shall be the Arizona state court located in Maricopa County, Arizona, and the party ultimately prevailing in such dispute shall be entitled to recover from the non-prevailing party the reasonable attorney's fees and expenses incurred by the prevailing party as determined by a court and not by a jury.

4.6.23 Termination

THDWID reserves the right to terminate the Agreement and all associated Work Orders at any time for any reason. The termination notice will be in writing by THDWID and sent via certified mail to CONTRACTOR. The termination notice will be effective upon receipt of the notice by the CONTRACTOR. CONTRACTOR will be compensated for services properly completed prior to termination.

4.7 THDWID SUPERINTENDENT

The Superintendent shall be THDWID's representative with respect to management, operation and maintenance of the water system. The Superintendent is an employee of THDWID. A Superintendent shall perform the following Scope of Work.

4.7.1 General Responsibilities

- A. Maintain a standard of ethical behavior, responsiveness, and resourcefulness.
- B. Responsible for daily water system operations.
- C. Work to identify District, customer, and community needs.
- D. Continuously evaluate the effectiveness and quality of the services provided.
- E. Be knowledgeable about District policies and procedures, negotiated agreements, and practices.
- F. Report to the THDWID Board of Directors.
- G. Keep the Board informed on the status of the District and make recommendations for changes and improvements that will promote the continued success of the District.
- H. Attend THDWID Board meetings to update the Board on all operational issues, as necessary.
- I. Keep the Board informed on decisions that significantly impact the operations of the District.
- J. Assist the Board in strategic planning and make appropriate recommendations for the future.

- K. Be knowledgeable of industry practices and trends.
- L. Have a valid driver's license and be listed as "insured" on THDWID's vehicle insurance.
- M. Maintain calendar of future actions that require Board action.

4.7.2 Water System Management and Operations

- A. Report operational issues along with recommended solutions to the Board of Directors and, if necessary, to the Certified Operator.
- B. Develop list of monthly/weekly system parameter checks.
- C. Ensure that all water quality tests, equipment exercises, including Pressure Relief Valves, standpipe flushes, preventative maintenance, back-flow certifications, etc., are conducted properly and on schedule.
- D. Provide monthly water system operations and conditions report to THDWID Board of Directors.
- E. Ensure proper functioning and monitoring of the water storage tank instrumentation.
- F. Annually conduct physical inventory and reconcile records. Report results to the Board.
- G. Ensure winter freeze precaution reminders are sent to Members at the appropriate time. Ensure that all exposed pipes susceptible to freezing are properly and timely insulated or heated and that all standpipes are allowed to slowly drip to prevent freezing whenever freezing weather conditions are imminent.
- H. Document and notify the THDWID office in writing of all customer contacts or required repairs to the system.
- I. Conduct routine inspections on all system equipment and/or arrange for appropriate contractors to inspect specialized equipment.
- J. Arrange for Blue Staking where necessary.
- K. Arrange for appropriate contractors to conduct preventative and routine maintenance and repairs on system equipment per manufactures' recommendations.

Superintendent is responsible for monitoring, on behalf of THDWID, the work conducted by these contractors.

- L. Arrange for appropriate contractors to install, replace, calibrate, and read water meters, as necessary, in accordance with manufacturer's recommendations and the THDWID Policies and Procedures.
- M. Notify contractors that they are required to perform all work in compliance with applicable OSHA regulations; including those for Confined Space work. Conduct a safety meeting and job walk with Contractor's job supervisor before any work begins.
- N. Personally or through assistants, which could include local residents, provide continuous emergency response coverage with 15-minute response time for emergencies.
- O. Maintain a log of incidents and customer problems, and provide monthly updates of the log to THDWID.
- P. Collect, record, and report pressure gauge measurements in the three Pressure Reducing Valve (PRV) vaults located along Old Mine Road, Manana Road, and Blue Wash Road to THDWID. Superintendent will work with Certified Operator to ensure the PRVs are adjusted as needed to provide proper pressure in the distribution pipelines. Report the adjustments made and any necessary maintenance to THDWID in a timely manner. Ensure that confined-space laws are met when working at these vaults.
- Q. Work with THDWID personnel to implement the bi-annual valve exercise program established by THDWID and recommend revisions as necessary. Provide valve exercise results to the THDWID Board and Certified Operator.
- R. Superintendent will maintain and reconcile periodically a register of spare parts and equipment, and will recommend any adjustments to this register in order to provide for the timely repair or replacement of water system components and to minimize interruption of water service to THDWID customers. As needed, order equipment within authority boundaries.
- S. Assist THDWID personnel, as necessary, to adjust the THDWID system shutdown procedures to permit timely maintenance and to prevent damage to the system.
- T. Assist and advise THDWID on proper backflow prevention policies and conduct or subcontract the annual certification in June of the backflow device located adjacent to and downstream from the City of Scottsdale water meter at 43021 N. 111th Place.

- U. Ensure backflow prevention assemblies at other locations, including commercial lots, are certified by the owner on an annual basis and that results of certification are included in the system records.
- V. Conduct preventative maintenance checks including:
 1. Conduct monthly routine housekeeping for the system.
 2. Complete monthly/weekly system parameter checks.
 3. Check all locks periodically.
 4. Check pipelines for soil erosion monthly and after large rainstorms.
 5. Drive system weekly and inspect for exposed pipe, wet ground, leaky hydrants, and storage tank conditions. Use leak detector devices, if available and necessary.
 6. Check valve markers.
 7. Ensure upper and lower pressures at the master PRV's are measured and recorded every 90 days. As part of this task, check pressure in the standpipes immediately below the PRV's.
 8. Check storage tank and pipeline from the Scottsdale meter to the tank inlet for leaks weekly.
 9. Check function of control valve weekly.
 10. Check that overflow pipe is not flowing weekly.
 11. Check function of level and flow indicator equipment weekly.
 12. Exercise all street valves bi-annually.
- W. Report to the THDWID contact the results of preventative maintenance checks.
- X. Supervise meter readings and ensure meter reader is performing the job properly. Ensure meter readings are submitted to the designated Board member and to Foothills Accounting for processing and billing.
- Y. Respond to the Accounting firm's notifications of unusual meter readings. Re-read the meter. Compare residential meter reading to past usage. If the reading indicates a spike in usage, notify the parcel owner as expeditiously as possible. Volunteer to assist in identifying the problem. Offer to shut-off the water main if the owner

cannot do so immediately. If the reading was erroneous, provide the Accounting firm with the correct reading. Counsel the meter reader.

- Z. Conduct meter re-reads at Members' requests; notify the accounting firm to charge the re-read fee when the original reading was not in error.
- AA. Conduct meter tests at Members requests'; notify the Accounting Firm to charge the meter test fee if the test shows accuracy within three percent.
- BB. Respond to System Emergencies and Calls
 - 1. Receive calls from members having water system problems or witnessing pipeline breaks or other issues with the system.
 - 2. Alert THDWID Board representative as necessary.
 - 3. Check repair contractor invoices against Superintendent notes from monitoring the work. Verify and recommend charges for payment to the General Manager.
 - 4. Confirm acceptance of the work with the Certified Operator.
 - 5. Document members' requests for invoice adjustment due to accidental excessive use. Make recommendation to the Treasurer.

4.7.3 Capital Improvements

- A. Recommend capital improvements to the THDWID Board of Directors.
- B. Oversee contractor work.
- C. Ensure that all work is performed in compliance with the applicable sections of the Contractor Requirements in the Policies and Procedures, including OSHA regulations and those outlined in the Confined Space section of that document.
- D. Administer Contractor contract and ensure compliance.
- E. Inspect Contractor's OSHA log, if applicable; report any concerns to the Board of Directors.
- F. Check contractor invoices and recommend payment to the Treasurer.

4.7.4 Sampling and Analyses

- A. Ensure the required water quality samples for laboratory and field testing are collected, processed, and submitted by the Certified Operator to an Arizona-licensed laboratory as specified in the current *Water Quality Compliance Sampling Locations and Schedule* and the current *Revised Total Coliform Rule (RTCR) Sampling Plan*, and in accordance with all applicable state, federal, local, and laboratory requirements for sampling methods, sample handling/transport, and sample documentation.
- B. With the Certified Operator and the THDWID Board, select an Arizona-licensed and properly qualified chemical and bacteriological laboratory to be the primary laboratory for analysis of THDWID water quality samples.
- C. Stay current on performance of the selected laboratory and report any problems or unusual events to THDWID immediately upon becoming aware of them.
- D. With the Certified Operator, ensure the timely preparation and submittal of all required documentation and public/Arizona Department of Environmental Quality (ADEQ) notifications required when an RTCR repeat sampling is necessary or when any other event requires notification in accordance with the ADEQ public notification requirements and flowcharts (see the ADEQ Repeat Monitoring Requirements for Small Systems, the EPA Public Notification Rule, and the ADEQ Flow Chart for Determining Public Notice Requirements for All Public Water Systems R18-4-105).
- E. Represent the THDWID and accompany ADEQ personnel during ADEQ inspection of THDWID water system at 3-year intervals.
- F. Analyze laboratory results for reports and modifications to the system necessary to maintain proper water quality and system function. Report issues and recommendations concerning out of parameter readings.

4.7.5 Reporting

THDWID currently prepares and submits the following reports to the Arizona Department of Water Resources (ADWR) and the Arizona Department of Environmental Quality (ADEQ). Superintendent responsibilities include:

- A. Prepare and submit the Annual Water Withdrawal and Use Report to ADWR, due March 31. A draft report will be prepared a minimum of 30 days before this due date to allow the THDWID Board to review and comment.

- B. Prepare and submit the Annual Underground Water Storage Report to ADWR, due March 31. A draft report will be prepared a minimum of 30 days before this due date to allow the THDWID Board to review and comment.
- C. Prepare and submit the Consumer Confidence Report to customers and ADEQ due June 30. A draft report will be prepared a minimum of 30 days before this due date to allow the THDWID Board to review and comment.
- D. Prepare and submit, or ensure that laboratory prepares and submits, to ADEQ in a timely fashion a properly completed *Stage 2 Disinfection By-Products (TTHM & HAA5) Individual Sample Report*, and ensure THDWID is provided a copy at the same time as ADEQ. Laboratory currently submits this report
- E. Prepare and submit, or ensure that laboratory prepares and submits, to ADEQ in a timely fashion a properly completed *Stage 2 Disinfection By-Products (TTHM & HAA5) Quarterly Report*, and ensure THDWID is provided a copy at the same time as ADEQ. THDWID currently submits this report

4.7.6 Administrative

- A. Use computer systems and applications in the performance of work assignments, such as electronic spreadsheets, word processing, and graphics.
- B. Set priorities, assign, schedule, train, supervise, audit, and evaluate work activities and communicate effectively with assigned personnel.
- C. Understand, interpret and apply pertinent federal, state and local laws, regulations, procedures and policies of assigned area.
- D. Certify and re-certify Contractors.
- E. Provide records of maintenance performed to the Board Operations Committee on a regular basis.
- F. Interpret legal descriptions and documents, maps, construction plans and other descriptive materials relating to improvement districts and as related to assigned area.
- G. Identify and resolve operational and procedural problems and implement corrective actions.
- H. Summarize notes and prepare reports and data for informational or study purposes.
- I. Make decisions in accordance with established policies and procedures.

- J. Maintain accurate and up-to-date records and documentation.
- K. Assess the need for capital expenditures on the system, make recommendations to the THDWID Board, and oversee the approved work.
- L. Report any key employee changes to THDWID that may impact Superintendent's services provided to THDWID.
- M. Maintain a log of work conducted for the THDWID system and submit a copy of the log with the monthly invoice for services rendered.
- N. Notify Maricopa County and other governmental or regulatory agencies with the contact information for the Superintendent for THDWID.
- O. Copy the THDWID designated representative on all communications with regulatory agencies and other outside entities regarding the THDWID water system.
- P. Maintain THDWID operating files, system inventory, and permits at the water facility site.
- Q. Submit copies of all permits, compliance reports, and communications to the designated THDWID office for duplicate record storage.
- R. Document and notify the THDWID office in writing of all customer contact or required repairs to the water system.

4.8 THDWID CLERK

4.8.1 General Statements

The clerk shall be supervised by the THDWID Board Secretary.

4.8.2 Duties

- A. Circulate suggested Board meeting agenda items.
- B. Compile and post THDWID Board meeting agendas.
- C. Take minutes at THDWID Board meetings and circulate the draft for comment.

- D. Sign and post approved minutes within three days after Board approval.
- E. Maintain THDWID files including all records related to customer complaints.
- F. Coordinate with the Treasurer to ensure record retention and record back-up policies and procedures are followed.
- G. Process incoming and outgoing DWID mail.
- H. Monitor the THDWID answering machine phone messages, maintain a call log, and route messages appropriately.
- I. Make arrangements for meeting rooms.
- J. Open mail delivered to mail box or packages delivered to Blue Wash address and route appropriately.

4.9 METER READER

4.9.1 General Statements

- A. The Meter Reader shall be an employee of THDWID and shall be supervised by the Superintendent.
- B. The Meter Reader must have a valid driver's license and be listed as insured on THDWID's vehicle insurance if he uses the DWID vehicle.

4.9.2 Duties

- A. Within two days of the end of the month, read all Customer meters and send the information on the appropriate form to Foothills Accounting and the THDWID Board.
- B. Read the meter at the Scottsdale point of delivery concurrent with the Customer meters and note the exact time of the reading.
- C. Notify the Superintendent if any meter or meter box installation shows sign of wear or leakage.

- D. Notify the Superintendent if any meters require foliage clearing or other actions in order to gain good access.

4.10 CERTIFIED OPERATOR FOR WATER SYSTEM

The Certified Operator shall advise the Board of required management, operation and maintenance of the water system. If contracted, this position will be re-bid bi-annually unless the Certified Operator is performing satisfactorily and it is in the best interest of THDWID to extend the contract for a longer period. The Certified Operator may be an employee of THDWID. A Certified Operator under contract with, or as an employee of, THDWID shall perform the following Scope of Work in addition to any other duties required by its certification.

4.10.1 Sampling

- A. Collect, process, and submit to an Arizona-licensed laboratory the required water quality samples as specified in the current *Water Quality Compliance Sampling Locations and Schedule* and the current *Revised Total Coliform Rule (RTCR) Sampling Plan*, and in accordance with all applicable state, federal, local, and laboratory requirements for sampling methods, sample handling/transport, and sample documentation.
- B. Notify THDWID in a timely manner if the water quality sampling plans and schedules become out of compliance with applicable local, state, or federal requirements.
- C. Complete all required information on appropriate Sample Chain-of-Custody forms and provide THDWID with a copy after each sampling round.
- D. Ensure that the laboratory submits all required laboratory reports and results to the Arizona Department of Environmental Quality (ADEQ) and THDWID in a timely manner.
- E. Analyze results of all sampling and notify THDWID of any exceedances of state or federal water quality Maximum Contaminant Levels (MCLs) or Maximum Contaminant Level Goals (MCLGs).
- F. In accordance with the *Revised Total Coliform Rule (RTCR) Sampling Plan*, collect, process, and submit to the laboratory the required repeat bacteriological samples within 24 hours of receipt of the laboratory results that indicate a positive

bacteriological detection any monthly routine RTCR sample (see the ADEQ Repeat Monitoring Requirements for Small Systems, the EPA Public Notification Rule, and the ADEQ Flow Chart for Determining Public Notice Requirements for All Public Water Systems R18-4-105).

- G. Measure residual chlorine using a field instrument acceptable to ADEQ during collection of each water quality sample and report the values to ADEQ and THDWID in a Quarterly Report of Maximum Residual Disinfection Level (MRDL) Chlorine/Chloramines - 1012/1006 (Distribution Sampling).

4.10.2 Laboratory and Reporting

- A. With THDWID personnel, select an Arizona-licensed and properly qualified chemical and bacteriological laboratory to be the primary laboratory for analysis of THDWID water quality samples and provide THDWID with the laboratory fee schedule.
- B. Stay current on performance of the selected laboratory and report any problems or unusual events to THDWID immediately upon becoming aware of them.
- C. Assist THDWID in the timely preparation and submittal of all required documentation and public/ADEQ notifications required when an RTCR repeat sampling is necessary or when any other event requires notification in accordance with the ADEQ public notification requirements and flowcharts (see the ADEQ Repeat Monitoring Requirements for Small Systems, the EPA Public Notification Rule, and the ADEQ Flow Chart for Determining Public Notice Requirements for All Public Water Systems R18-4-105).
- D. Accompany THDWID personnel during ADEQ inspection of THDWID water system at 3-year intervals.

4.10.3 Water System

- A. Maintain awareness of conditions and problems with the THDWID water system through monthly inspections and communications with THDWID personnel and notify THDWID of any concerns or conditions that may impact the continuous delivery of sufficient quantities of safe drinking water to the THDWID customers. Also, recommend improvements or adjustments to the system as necessary.

- B. THDWID personnel will collect, record, and report pressure gauge measurements in the three Pressure Reducing Valve (PRV) vaults located along Old Mine Road, Manana Road, and Blue Wash Road to THDWID. Certified Operator will adjust the PRVs as needed to provide proper pressure in the distribution pipelines and report the adjustments made and any necessary maintenance to THDWID in a timely manner. Ensure that confined-space laws are met when working at these vaults.
- C. Maintain an awareness of the valve exercise program established and implemented by THDWID and recommend revisions as necessary. THDWID personnel will provide valve exercise results to Certified Operator.
- D. Work with THDWID personnel to ensure that all exposed pipes susceptible to freezing are properly and timely insulated or heated and that all standpipes are allowed to slowly drip to prevent freezing whenever freezing weather conditions are imminent.
- E. THDWID personnel will maintain and reconcile periodically a register of spare parts and equipment, and Certified Operator will recommend any adjustments to this register in order to provide for the timely repair or replacement of water system components and to minimize interruption of water service to THDWID customers.
- F. Assist THDWID personnel, as necessary, to adjust the THDWID system shutdown procedures to permit timely maintenance and to prevent damage to the system.
- G. Assist and advise THDWID on proper backflow prevention policies. THDWID will subcontract the annual certification in June of the backflow device located adjacent to and downstream from the City of Scottsdale water meter at 43021 N. 111th Place. THDWID will provide results from these tests to Certified Operator.

4.10.4 Administrative

- A. Provide a State-Certified water operator with the appropriate classification for the THDWID water system. The THDWID water system is a Class 2, Grade 2 water distribution system.
- B. Maintain this certification in good standing with ADEQ and be in compliance with all local, state, and federal laws and regulations pertaining to Certified Operators in Arizona for the duration of the contract with THDWID.
- C. Report any key employee changes to THDWID that may impact Certified Operator's services provided to THDWID.

- D. Maintain a log of work conducted for the THDWID system and submit a copy of the log with the monthly invoice for services rendered.
- E. Notify ADEQ that it is the Certified Operator for THDWID.
- F. Copy the THDWID designated representative on all communications with regulatory agencies and other outside entities regarding the THDWID water system.

4.10.5 Contractor Requirements

As applicable, the Certified Operator must comply with the provisions in the *Contractor's for THDWID* section.

4.11 ACCOUNTING FIRM

4.11.1 General Statements

THDWID will contract with an accounting firm to assist the Treasurer in carrying out that office's responsibility. The contract and scope of work should be evaluated annually or as needed and re-bid if deemed necessary by the Treasurer in consultation with the Board.

4.11.2 Duties

- A. Prepare and mail/e-mail monthly water bills.
- B. Post and deposit payments received.
- C. Prepare disbursement checks requested by the Treasurer or Board member.
- D. Prepare disbursement checks for Accounting Firm services and for sales tax payments.
- E. Answer routine questions from THDWID members. Route non-routine inquiries to the Treasurer or Superintendent, as appropriate.
- F. Maintain the original copy of the General Ledger.
- G. Maintain duplicate copy of accounts receivable.

- H. Prepare and file state sales tax returns.
- I. Reconcile monthly bank statements.
- J. Semi-annually request print, collate and mail assessment billings.
- K. Receive, deposit and post assessment receipts in the general ledger and in an Excel workbook.
- L. Prepare reports as requested by the Treasurer and provide the Treasurer with back-up copies of the general ledger at least monthly.

4.12 PAYROLL PROCESSING FIRM

General Statements

THDWID Payroll Processing Firm completes the following tasks:

- A. Adds Employees to their payroll system.
- B. Conduct legally required background checks; e.g. I-9, E-verify.
- C. Ensure completion of W-4 and other required paperwork.
- D. Issue payroll checks.
- E. Pay taxes deducted from payroll checks to the appropriate governmental entity.
- F. Issue invoices to THDWID for payroll expenditures and professional services.
- G. Ensure compliance with the Equal Employment Opportunity Act and Title VI of the Civil Rights Act of 1964.
- H. Track sick pay hours accumulation and maintain running total as used. Rollover sick pay hours in accordance with THDWID instructions.
- I. Submit all federal and state required documents to include I-9's, E-Verify.
- J. Issue and report employee payroll.

5.0 THDWID BOARD APPROVAL

We hereby certify that the foregoing Policies and Procedures were accepted and approved by the Board of Directors of the Tonto Hills Domestic Water Improvement District at a Board Meeting on the 23rd day of April, 2019.



Signature of THDWID Chairperson or Acting Chairperson

04/23/2019

Date



Attested by
Signature of THDWID Clerk

04/23/2019

Date

APPENDIX A

BOARD MEMBER HISTORY & ELECTIONS



BOARD MEMBER HISTORY & ELECTIONS

BOARD MEMBER HISTORY

The succession history for the THDWID Board members and employees is shown on **Figure 1**. The initial Board was appointed by the Maricopa County Board of Supervisors (MCBOS) when the THDWID was approved on 1/28/2009. Following is a list of the original THDWID Board members and their initial term ending dates:

Board Member 1:	Charles Civer	12/31/2012
Board Member 2:	William Victor	12/31/2012
Board Member 3:	Don Rex	12/31/2010
Board Member 4:	Robert Swan	12/31/2010
Board Member 5:	Scott Smallish	12/31/2010

Three Board members (Rex, Swan, and Smallish) served initial two-year terms and two (Civer and Victor) served initial four-year terms to provide a staggered succession and organizational memory through Board transitions. All subsequent terms are four years.

Elections follow a County process that requires election dates to coincide with government election dates, usually in November. If there is no competition for open Board positions, the County cancels the election and appoints the candidates who have fulfilled all the candidate requirements.

Notes on Board member succession after the initial appointment on 1/28/2009:

- April 2010: Rick Pearson was appointed by the THDWID Board in April 2010 to complete the term of Don Rex, who was relocating outside the District.
- Dec 2010: Rick Pearson, Robert Swan, and Scott Smallish were appointed to an extended term expiring in December 2011. An election should have been held in November 2010. Due to a misunderstanding of the election timing, this election was not scheduled to be held until 3/8/2011.
- March 2011: Rick Pearson, Robert Swan, and Scott Smallish were appointed to new 4-year terms ending 12/31/2015 by the MCBOS after the election scheduled for 3/8/2011 was cancelled due to lack of opponents.
- 4/12/2011: Rick Nelson was appointed by the THDWID Board to complete the term of Scott Smallish, who stepped down due to work obligations.



- 4/26/2011: Ralph Spurgin was appointed by the THDWID Board to complete the term of Rick Pearson, who stepped down due to other commitments.
- Feb 2013: Charles Civer stepped down after a long period of service on this Board as well as the THIA Water Committee that developed and implemented the concept of establishing a County water district to purchase the assets of Tonto Hills Utility Co. Charles Hoagland was appointed by the THDWID Board to complete Mr. Civer's term.
- Aug 2012: William Victor and Charles Hoagland were appointed to new terms by the MCBOS after the election scheduled for 11/6/2012 was cancelled due to lack of opponents.
- 5/20/2013: Keith Peirce was appointed by the THDWID Board on 5/20/2013 to complete the term of Charles Hoagland, who stepped down due to other commitments.
- Sept 2015: Ralph Spurgin and Rick Nelson were appointed to new terms by the MCBOS after the election scheduled for 11/3/2015 was cancelled due to lack of opponents. The THDWID Board appointed Christine Anderson to the position vacated by Robert Swan. Robert Swan had decided not to run again after a long period of service on this Board as well as the THIA Water Committee.
- 9/7/2016: Keith Peirce and William Victor were appointed to new terms by the MCBOS after the election scheduled for 11/1/2016 was cancelled due to lack of opponents.
- 12/20/2016: The THDWID Board appointed Corey Garrison on 12/20/2016 to the position vacated by Christine Anderson, who decided to step down from the Board due to work obligations. She continued to serve as Chair of the Financial Reporting Subcommittee.
- 2/22/2017: The THDWID Board appointed Linda Rawles on 2/22/2017 to the position vacated by William Victor, who was hired to fill the position of District Superintendent on January 24, 2017.
- 2/23/2018: Linda Rawles resigned on 2/23/2018 due to work commitments. The THDWID Board resolved to appoint William Victor to complete the term of that Board position after being replaced as Superintendent on 6/16/2018 by promotion of Assistant Superintendent Jeff Frazey.
- 9/18/2019: Wayne Binnicker, Corey Garrison, and Rick Nelson were appointed to new terms by the MCBOS after the election scheduled for 11/5/2019 was cancelled due to lack of opponents. Ralph Spurgin decided not to run again after 9 years of service on this Board as Chairman.



Following is a list of the current THDWID Board members and their term ending dates:

Board Member 1:	Keith Peirce	12/31/2020
Board Member 2:	William Victor	12/31/2020
Board Member 3:	Wayne Binnicker	12/31/2023
Board Member 4:	Corey Garrison	12/31/2023
Board Member 5:	Rick Nelson	12/31/2023

BOARD MEMBER ELECTIONS

The jurisdiction and rules for the election process include Arizona Revised Statutes 48-1012 and a series of titles ranging from 16-101 to 16-558. The statutes allow mail-in ballots, if approved by the Maricopa County Board of Supervisors (MCBOS).

The next election process should begin in June 2020 in order to have a November 3, 2020 election date. The next election timetable will be updated and provided in a separate document.

FIGURE 1. SUCCESSION HISTORY OF THE THDWID BOARD OF DIRECTORS AND DISTRICT EMPLOYEES

	BOARD MEMBER 1	BOARD MEMBER 2	BOARD MEMBER 3	BOARD MEMBER 4	BOARD MEMBER 5	DISTRICT CLERK	SUPER-INTENDENT	ASSISTANT SUPER-INTENDENT 1	ASSISTANT SUPER-INTENDENT 2	CERTIFIED OPERATOR	METER READER			
2009	Charles Civer 1/28/2009 to 2/2012		Don Rex 1/28/2009 to 4/2010		Scott Smallish 1/28/2009 to 4/12/2011	Susan Victor 1/28/2009 to 8/16/2018	NOT HIRED UNTIL TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT PURCHASED ASSETS OF TONTO HILLS UTILITY COMPANY							
2010			Rick Pearson 4/2010 to 4/26/2011				William Victor 1/28/2009 to 1/24/2017	Robert Swan 1/28/2009 to 12/31/2015	Kirk Landauer 1/21/2011 to 5/31/2013	UNFILLED	Robert Hanus 12/17/2010 to 1/20/2017	VARIOUS 12/17/2010 to 2/28/2013		
2011	Charles Hoagland 2/2012 to 5/20/2013													
2012														
2013	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED									
2014													UNFILLED	UNFILLED
2015	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED									
2016													UNFILLED	UNFILLED
2017	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED									
2018													UNFILLED	UNFILLED
2019	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED								
2020							UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED		
2021	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED								
2022							UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED		
2023	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED								
2024							UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED		
2025	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED	UNFILLED								

NOTE: Election dates Candidates
 3/8/2011 Pearson, Swan, Smallish
 11/6/2012 Hoagland, Victor
 11/3/2015 Spurgin, Anderson, Nelson
 11/1/2016 Peirce, Victor
 11/5/2019 Binnicker, Nelson, Garrison

APPENDIX B

THDWID BOARD ACTIONS CALENDAR

THDWID Board Action Calendar

<u>Action</u>	<u>Responsibility</u>	<u>Timing</u>
• Prepare/post Board agendas	Secretary	Monthly
• Prepare/post Board minutes	Secretary	Monthly
• Bacteriological (coliform) sampling round (oversight)	Superintendent	Monthly
• Prepare P&L and balance sheet schedules	Treasurer	Monthly
• Review financials & monthly/YTD/trend on water loss	Board	Monthly
• Prepare aged water bill delinquency report	Treasurer	Monthly
• Update THDWID water use spreadsheet	Superintendent	Monthly
• Compare Scottsdale meter readings to tank inflow meter	Superintendent	Monthly
• <u>Back-up and retain documents per P&P Section 1.2.2D2-5</u>	Secretary	Monthly
• Prepare quarterly P&L to budget comparisons	Treasurer	Quarterly (J,A,J,O)
• Review bank statements and payable invoices	Ops Review Comm.	Quarterly (J,A,J,O)
• Disinfection By-Products sampling round (oversight)	Superintendent	Quarterly (M,J,S,D)
• DWAR 32/33 Reports to ADEQ for Disinfection By-Products	Superintendent	Quarterly (M,J,S,D)
• Check pressure gauges in PRV's	Superintendent	Quarterly (M,J,S,D)
• <u>Ensure two incident logs are up to date</u>	Superintendent	Quarterly (M,J,S,D)
• Draft prior year's accomplishments listing	Chairman	January
• Send high user letters	Nelson	January
• Reconcile Desert Inet payments vs. APS invoices	Treasurer	January
• Review and update P&Ps	Secretary	January
• Review and update website	Secretary	January
• Review insurance coverage	Nelson	January
• <u>Update by street the member emergency notification list</u>	Superintendent	January
• Prepare/submit annual WIFA loan report	Treasurer	February
• Pay County property tax on Lot 115	Treasurer	February
• Assign responsibilities per P&P section 1.2.2D5	Chairman	February
• Review Conservation Plan-set Stage	Board	February
• <u>Send Conservation newsletter</u>	Nelson	February
• Hold annual meeting with Members	Chairman	March
• Review Mission S/W/O/T	Chairman	March
• Submit ADWR Annual Water Withdrawal and Use Report	Superintendent	March
• Submit ADWR Water Stored Report for RWCD	Superintendent	March
• Ensure liability insurance payment is made or schedule	Treasurer	March
• Conduct annual Operations audit	Ops Review Comm.	March 2022
• <u>Investigate grants</u>	Nelson	March
• Conduct Board valve training	Superintendent	April
• Certify/recertify Contactors	Superintendent	April
• <u>Assess value of Long-Term Storage Credits</u>	Superintendent	April
• Review deposit refund schedule, if any	Treasurer	May
• Bill assessments	Treasurer	May
• Board employee performance appraisal discussion	Board	May

<u>Action</u>	<u>Responsibility</u>	<u>Timing</u>
• Provide clerk check register/bank/investment stmts. copy	Treasurer	May
• Compare THDWID rate structure to others'	Chairman	May
• Destroy records beyond retention period requirements	Secretary	May
• Review performance of Contractors	Operations Comm.	May
• Conduct PRV inspection and preventative maintenance	Superintendent	May
• Complete confined space paperwork	Superintendent	May
• Complete/reconcile spare parts/equipment register	Superintendent	May
• <u>Send Conservation newsletter</u>	Nelson	May
• Begin election process for Board members, if necessary	Chairman	June 2019
• Prepare aged DWID assessment delinquency report	Treasurer	June
• Submit Consumer Confidence Report to ADEQ/Members	Superintendent	June
• Make semi-annual WIFA payment	Treasurer	June
• Confirm test of Scottsdale intake RP valve	Superintendent	June
• <u>Update shutdown & emergency procedures and Customer phone list</u>	Superintendent	June
• Send WIFA Indebtedness Report to State Treasurer's Office	Treasurer	July
• Refresh safety deposit record retention	Secretary	July
• Update by street the member emergency notification list	Superintendent	July
• <u>Send high user letters</u>	Nelson	July
• Place annual water order with Scottsdale	Superintendent	September
• Place annual water order with CAWCD	Superintendent	September
• Place annual water order with RWCD	Superintendent	September
• <u>Send conservation newsletter</u>	Nelson	September
• Update leak detection company and water trucking company lists	Chairman	November
• Develop budget	Treasurer	November
• <u>Bill Assessments</u>	Treasurer	November
• Approve budget	Board	December
• Exercise valves and standpipes	Superintendent	December
• Send Freeze Notice Letter	Secretary	December
• Renew Transaction Privilege Tax Exemption	Treasurer	December
• Prepare aged DWID assessment delinquency report	Treasurer	December
• Make semi-annual payment to WIFA	Treasurer	December
• Elect Board officers	Board	December
• <u>Transfer "unused" CAP allocation to RWCD using COS data (call COS)</u>	Superintendent	December
• Report key personnel changes to WIFA (see Exhibit C)	Treasurer	As occurs
• Reports adverse change, litigation, regulatory notice to WIFA	Treasurer	As occurs
<u>LONG-RANGE ACTIONS</u>		
• ADEQ 3-year system inspection	Superintendent	2020
• Request NIA reallocation water from ADWR	Superintendent	January 2020
• Renew RWCD water banking agreement	Superintendent	November 2020
• Review/submit Water Plan (Conservation Plan) Update to ADWR	Nelson	December 2022
• Renew ADWR Water Storage Permit	Superintendent	April 2033
• Renegotiate COS contract for treatment & transportation	Chairman	November 2034
• Renegotiate CAP contract	Chairman	January 2109

APPENDIX C

PACKAGE FOR APPLICATION FOR WATER SERVICE



MAIL: 11228 E. Hohokam Lane, Cave Creek, AZ 85331
EMAIL: THDWID.board@gmail.com
WEB: www.TontoHillsWater.org
OFFICE PHONE: (480) 595-0128
EMERGENCIES: (480) 745-1427

BOARD: RICK NELSON, Chairman
BILL VICTOR, Secretary
COREY GARRISON, Treasurer
RALPH SPURGIN
KEITH PEIRCE
STAFF: ERICA BOYLE, Clerk
JEFF FRAZEY, Superintendent

To: All applicants for water service

RE: WATER SERVICE APPLICATION PACKAGE

Dear Applicant:

Enclosed please find the Water Service Application Package for New Members of the Tonto Hills Domestic Water Improvement District (THDWID). This package contains:

1. Instructions for Application for Water Service
2. Application for Water Service - New Member
3. Fee Schedule, which describes Usage Charges, Commodity Rates, and Service Line and Meter Installation Charges
4. Water Customer Responsibilities
5. THDWID New Build/Remodel Water Considerations
6. THDWID Water Supply and Demand

Please read and become familiar with the requirements contained in these documents and in the THDWID Policy and Procedures, which you are agreeing to follow by signing the Application for Water Service. Please pay particular attention to the requirements for **Backflow Prevention**. These documents are revised from time to time and new versions are posted when available on our website at: www.TontoHillsWater.org.

Another document that may be useful to you is our **Frequently Asked Questions (FAQs)**, which can be found in the **Buyer Information** folder at: www.TontoHillsWater.org.

Commercial Parcels: The THDWID has adopted a policy of **mandatory Reduced Pressure Principle (RP) Backflow Prevention Assemblies** to be installed and tested at **all commercial parcels** prior to occupancy. Please refer to the section on Backflow Prevention in our Policies and Procedures in the **Buyer Information** folder at: www.TontoHillsWater.org.

If you have any questions about this application or the associated documents, please don't hesitate to contact the THDWID Board Members or our Superintendent at the phone and email shown above in the letterhead.

Best Regards,

Your Tonto Hills DWID Board

Revised 2019-04-20 wrv



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INSTRUCTIONS FOR APPLICATION FOR WATER SERVICE

Only legal owners of real property within the Tonto Hills Domestic Water Improvement District (the THDWID) are authorized to sign the Application for Water Service and are responsible for ensuring that the water bills are paid and the Policy and Procedures are followed. The Policies and Procedures can be downloaded from the THDWID website at www.TontoHillsWater.org and are available in hard copy on request. **Pay special attention to Backflow Prevention requirements.** The Policies and Procedures will be amended from time to time, as necessary. Notice will be given when substantive revisions are made to the content. Please provide the following information when completing the Application:

- **Application Fee:** Contact the THDWID at the phone and email in this letterhead to determine the fees for your service Application and enter this amount on the form.
- **Service Address:** Indicate property owner's name(s), address, lot number, and contact information for the property where service is requested. This contact information may be used for water emergencies.
- **Billing Address:** If the property owner would like the monthly invoices delivered to an address different than the service address, indicate the name, address, and telephone for that recipient.
- **Start Date:** Give the desired starting date for water service to the property.
- **Water Use Information:** In order to ensure the THDWID orders the proper amount of water deliveries each year from Central Arizona Project and the City of Scottsdale, it is helpful to evaluate and track how water use varies within the THDWID over time. Please indicate the number of individuals living at the property and what the general uses of the water are anticipated to be.
- **Signature:** Sign and date the Application. Only one of the legal property owner's signatures is needed.
- **How to Submit Application:** Please mail or email the [application page](#) to the THDWID mailing or email address in the letterhead above, together with a [copy of the driver's license or passport](#) of the person signing the Application and a [check for the Application fee](#).
- **Schedule Turn On of Service:** The THDWID Superintendent resides in Tonto Hills; please call to schedule your appointment: **480-595-0128**.
- **Email Address:** Many of our more urgent communications regarding water service maintenance and interruptions are most efficiently delivered via email. Please provide your email address to help our notification process. You may also request to receive your water bills via email.
- **Resident Directory:** Tonto Hills maintains a resident directory for use by District members. Please indicate if you authorize your contact information to be included in the directory by circling **YES or NO** where indicated on the signature line.

Please contact the Board with any questions at the phone and email in this letterhead.

Revised 4/20/2019 wrv



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APPLICATION FOR WATER SERVICE — NEW MEMBER

FEES REQUIRED AT TIME OF APPLICATION:

Line & Meter Installation Fee: \$ _____
 Service Establishment Fee: \$ 100.00
 Security Deposit (refundable): \$ _____
 Infrastructure Fee: \$ _____
 Other Fees, if applicable: \$ _____
 Sales Tax: \$ _____
TOTAL: \$ _____

FOR OFFICE USE ONLY

DATE: _____

ACCOUNT #: _____ **LOT NO.:** _____

METER READ: _____ **METER SIZE:** 5/8" 3/4" 1"

Make checks payable to Tonto Hills DWID

THE UNDERSIGNED HEREBY APPLIES FOR A SERVICE CONNECTION WITH TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT ("THDWID") AND, IF WATER SERVICE IS PROVIDED, AGREES TO THE FOLLOWING:

1. Comply in a timely manner with all terms, conditions, and fees and charges described in the THDWID Policies and Procedures, as amended from time to time, which include the Fee Schedule adopted by THDWID and which are incorporated as part of this Agreement. The Policies and Procedures may be downloaded from our website (see letterhead) and are available in hard copy on request. A summary of Customer responsibilities is attached hereto for convenience; please note *Backflow Prevention* requirements.
2. Bill payments, including all applicable fees and sales tax, are due on the 20th of each billing month, which will be about ten or more days after the bill mailing date. Any Customer account is delinquent if payment has not been received within ten calendar days after the due date. A Late Payment Fee will be assessed on all payments received by THDWID after this 10-day period. Thirty (30) calendar days after the delinquent date, THDWID may discontinue service to the Customer whose bill is delinquent. Each bill will contain total balance due and notice of actions to be taken if not paid within this 30-day period. No late notice is sent to the Customer, other than the water bill. Service will be reconnected only after all due bills are paid-in-full, together with any turn-off fee, reconnection fee, security deposit, and other applicable charges, in accordance with the Policies and Procedures. Failure to receive bills or notices that have been properly placed in the U.S. Mail (or emailed per Member instructions) shall not prevent such bills from becoming delinquent nor does it relieve Customer of the obligation to pay the bill or to comply with the terms of a notice.
3. As part of the responsibility to provide proper access, Customer shall keep a sufficient area around the water meter clear of vegetation or other objects that may hinder the meter reader from easily and safely accessing Customer's meter.

To be completed by the THDWID Member ONLY, proof of identification required: Please print clearly

Service Address (Customer's Parcel):

Billing Address: (If different from service address)

Name: _____
 Address: _____
 City, State, Zip: _____
 Telephone: _____ Lot No.: _____
 No. of individuals in household: _____

Name: _____
 Address: _____
 City, State, Zip: _____
 Telephone: _____
 Service Start Date requested: _____

List all uses of water (e.g., household, pool, landscaping, commercial, industrial, agricultural, etc.): _____

Signature: _____ Date: _____ **Add to Resident Directory? (circle one): YES NO**

By signing this form, you represent that you are the legal owner of the parcel at the Service Address above

E-Mail Address for notices and newsletters: _____

Type of proof of identification (e.g., driver's license, passport): _____ **(attach copy)**



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 JEFF FRAZEY, Superintendent

FEE SCHEDULE

A. Usage Charges, Commodity Rates, and Service Line and Meter Installation Charges

The following usage and commodity rates have been effective since January 1, 2014. Conservation Stages are defined in the Policies and Procedures (see www.TontoHillsWater.org).

COMMODITY RATES PER 1,000 GALLONS PER MONTH BY CONSERVATION STAGE IN EFFECT					
(Zero Gallons Included in Base Rate)			Stages 1 & 2	Stage 3 ^a	Stage 4 ^a
1st Tier:	0 – 4,000 Gallons	\$	6.80	6.80	6.80
2nd Tier:	4,001 – 13,000 Gallons	\$	10.20	10.20	10.20
3rd Tier:	13,001 – 20,000 Gallons	\$	12.30	15.00	20.00
4th Tier:	20,001 – 30,000 Gallons	\$	12.42	20.00	40.00
5th Tier:	over 30,000 Gallons	\$	12.55	30.00	70.00

MONTHLY USAGE CHARGES (BASE RATE)		
5/8" Meter (includes 5/8" x 3/4")	\$	40.00
3/4" Meter	\$	40.00
1" Meter	\$	100.00
SERVICE LINE AND METER INSTALLATION CHARGES^b		
5/8-inch Meter (includes 5/8 x 3/4)	\$	800.00
3/4-inch Meter	\$	1,000.00
1-inch Meter	\$	1,200.00
SERVICE CHARGES		
Establishment	\$	100.00
Disconnection (Delinquent or other) – “turn off”	\$	50.00
Reconnection (Delinquent or other) – “turn on”	\$	50.00
After Hours Surcharge for above services	\$	50.00
Late Payment Fee	\$	10.00
Collection Fee	\$	25.00
Security Deposit (refundable if account paid)	\$	250.00
Re-Establishment (within 12 months) – “standby”	\$	---- ^c
Deferred Payment (per month charge)	\$	1.50%/mo
Interest on Delinquent Balances	\$	---- ^d
Insufficient Funds (NSF) Check	\$	35.00
Meter Re-read (If Correct)	\$	15.00
Meter Test (If Correct)	\$	---- ^e
Meter replacement at Customer request or after meter is 5 years old	\$	---- ^f



Footnotes to Commodity Rates and Charges:

- a** Stage 3 and 4 water resource conditions are reached when any combination of build-out, water use, and adjustments to useable CAP allocation causes 80% or 90%, respectively, of the total useable CAP allocation to be used (see Policies & Procedures).
- b** Charges apply to standard installations only. Extra charges may apply to non-standard installations. Charges are non-refundable.
- c** Number of months off system times the monthly minimum as described in Arizona Administrative Code (A.A.C.) R14-2-403(D)
- d** Calculated per Arizona Revised Statute (A.R.S.) §48-910(G)
- e** \$50.00 plus cost of the bench test
- f** Charged on time and materials basis

B. One-Time Facilities Infrastructure Fee

Each new service connection shall pay the total one-time, non-refundable facilities infrastructure fee, derived from the following schedule:

ONE-TIME FACILITIES INFRASTRUCTURE FEE SCHEDULE (Non-refundable)			
Meter Size (inches)	NARUC Mater Factor	Total Fee	
5/8 (includes 5/8 x 3/4)	1	\$	4,000
3/4	1.5	\$	4,500
1	2.5	\$	7,500

1. Assessment of One-Time Infrastructure Fee: The infrastructure fee may be assessed only once per service connection, or lot within a platted subdivision. However, this provision does not exempt from the infrastructure fee any newly created parcels, which are a result of further subdivision of a lot or land parcel and which do not have a service connection.
2. Time of Payment:
 - In the event that the Applicant is required to enter into a main extension agreement, whereby the Applicant agrees to advance the costs of installing mains, valves, fittings, hydrants and other on-site improvements in order to extend service as described in A.A.C. R14-2-406(B), payment of the charges required hereunder shall be made by the Applicant within 15 calendar days after receipt of notice of approval from the THDWID.
 - In the event that the Applicant is not required to enter into a main extension agreement, the charges hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.



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WATER CUSTOMER RESPONSIBILITIES

Establishment of Service

Establishment of service shall be made only when the Customer's facilities are ready and accepted by the THDWID, and the THDWID needs only to install or read a meter, or turn the service on. Customers should review the THDWID New Build/Remodel Water Considerations published in the Governance section of the Tonto Hills website and in the Policies and Procedures.

The Customer's water lines or piping shall be installed in such a manner as to prevent cross-connection or backflow. Pressure vacuum breakers must be installed on all hose bibs used to fill water reservoirs, such as horse troughs, pools, etc., to prevent backflow. Residential backflow prevention devices shall be installed wherever cross-connections pose a threat to the THDWID water system, in accordance with the THDWID Policies and Procedures. THDWID will install a check valve with new water meters as a precaution; however, this action does not relieve Customer from any backflow prevention requirements for its property. THDWID may, at its sole discretion, install check valves at existing water meters. ***A Reduced Pressure Principle (RP) Backflow Prevention Assembly is mandatory for all parcels zoned commercial (see Policies and Procedures).***

NOTE: Contractors can be provided access to THDWID water for construction purposes. The THDWID Superintendent can provide access to a standpipe and a temporary meter for recording water use.

All pools must be equipped with pool covers. Negative edge pools must be equipped with automatic pool covers.

THDWID Members requesting connections on their parcels to the THDWID's water system shall grant to the THDWID all easements and rights-of-way required by the THDWID to provide water service to, across, or on the parcel for which the connection is being sought. Any failure to grant adequate easement and right-of-way shall be grounds for the THDWID to refuse connection and/or service to the requesting THDWID Member.

After initial installations and improvements, all THDWID Members agree to give THDWID representatives access across or on the parcel for any legitimate THDWID business.



Applicants for service shall be responsible for the cost of installing all piping from the meter outlet. It shall be unlawful for any person or entity to hook up to the water line or lines of any portion of the THDWID's water system unless and until the THDWID Superintendent has approved the application for service submitted by said person or entity. The THDWID may install its meter in the utility right-of-way along the roadside and will not be responsible for obtaining easements for private water lines.

Where the meter or service line location on the Customer's premises is changed at the request of the Customer or due to alterations on the Customer's premises, the Customer shall provide and have installed at Customer's expense all piping necessary for relocating the meters; and the THDWID may charge a fee for moving the meter and/or service line.

THDWID and its authorized employees or agents shall have the right to enter the parcel for purposes of verifying compliance with all THDWID requirements.

Other Customer Responsibilities

In addition to those responsibilities listed in the Establishment of Service section, following is a listing of some, but not all, Customer responsibilities:

1. Each Customer shall be responsible for paying all fees, rates, and charges invoiced by THDWID. This responsibility cannot be assigned to renters. This includes water used by fire departments to suppress fires on the parcel.
2. Each Customer's piping and apparatus shall be installed and maintained by the Customer, at the Customer's sole cost and expense, in a safe and efficient manner and in accordance with the THDWID Policies and Procedures and in full compliance with the regulations of the Arizona State Health Department, Arizona Department of Environmental Quality, Maricopa County, and the Uniform Plumbing Code.
3. Each Customer shall be responsible for maintaining all facilities on the Customer's side of the point of delivery in a safe and efficient manner and in accordance with the rules of properly constituted authority.
4. If each Customer's piping is so arranged that the THDWID is called upon to install a second meter, this additional service to the Customer's parcel will be considered as a separate and individual billing account.
5. Each Customer shall be responsible for safeguarding all THDWID property installed in, under, or on the Customer's premises for the purpose of supplying water to that Customer, and shall permit access to it by the authorized representatives of THDWID. Duly authorized employees or agents of THDWID shall have access at all reasonable hours to the



parcel for the purpose of installing or removing the THDWID's property, inspecting piping, or for any other purpose in connection with the THDWID's services and facilities.

6. As part of the responsibility to provide proper access, each Customer shall keep a sufficient area around the water meter clear of vegetation or other objects that may hinder the meter reader from easily and safely accessing Customer's meter.
7. Each Customer shall exercise all reasonable care to prevent loss or damage to THDWID property, excluding ordinary wear and tear. In the event that any loss or damage to the property of the THDWID or any accident or injury to persons or property is caused by or results from the negligence or wrongful act of the Customer, its agents, employees, guests, tenants, or other representatives, the cost of necessary repairs or replacements shall be paid by the Customer to the THDWID and any liability otherwise resulting shall be assumed by the Customer.
8. Each Customer shall be responsible for payment for any equipment damage and penalties resulting from unauthorized breaking of seals and/or from interfering, tampering, vandalizing, or bypassing the THDWID meter.
9. Each Customer shall be responsible for notifying the THDWID of any failure of the THDWID's equipment.
10. Each Customer shall be responsible to ensure that water furnished by the THDWID shall be used only on the Customer's premises and shall not be resold to any other person.
11. During Critical Water Conditions, as determined by the THDWID Board or other appropriate governmental authority, the THDWID may restrict water use and the Customer shall use water only for those purposes specified by the THDWID. The Customer shall use water only for those purposes specified for the water restriction levels set forth in the Water Conservation Plan. Critical Water Conditions are Stages 3 and 4. See the appendix to the Policies and Procedures.
12. Each Customer is responsible to be aware of information provided regarding local water conditions and water restrictions. Disregard for this rule by the Customer, its guests, tenants, employees, or other authorized parties shall be sufficient cause for THDWID's refusal or discontinuance of service to the parcel.
13. Each Customer is responsible to ensure that water furnished by the THDWID is to be used only within the boundaries of a Customer's parcel. Any Abusive Water Use as defined in the Policies and Procedures by any Customer is strictly prohibited. Abusive Water Use shall be sufficient cause for the THDWID's refusal or discontinuance of service to the parcel.
14. Each Customer is responsible to report any water leaks immediately, to the THDWID Superintendent.



15. Customers seeking to have their water service temporarily disconnected (turned off) for construction maintenance or repair purposes may contact the THDWID for this service. Turn-on/turn-off fees may be charged to Customers that have a temporary disconnect and re-connect.
16. Complaints must be filed at the THDWID principal office by setting forth the complaint in a written statement by the Customer or its authorized representative or agent. The complaint will be answered by the THDWID or its authorized representatives, including its legal counsel if deemed necessary by the Board, as soon as possible within a maximum of sixty-five (65) days from the THDWID's receipt of the complaint.
17. The Customer and its agents, family, or tenants shall not allow any pollutants and contaminants to enter the public potable water system from the point of delivery to the public potable water system. The Customer, at its own expense, shall install, operate, test, and maintain approved backflow preventive assemblies as directed by the THDWID. The customer is responsible for having the back-flow prevention device periodically tested by a back-flow assembly tester in accordance with manufacturers' specifications.
18. By no later than 15 days prior to a change in Parcel ownership, the Customer shall provide the THDWID with written notice to discontinue service and to indicate a change of Parcel owner. At such time as a Customer relinquishes title or ownership of a Parcel, then he or she shall no longer be a THDWID Member and shall no longer have the voting privileges, duties, or obligations of a THDWID Member with respect to the Parcel so relinquished.
19. The THDWID Member shall be responsible for all water charges associated with the THDWID Member's Parcel up to the time of closing sale to a new owner.
20. Nothing shall prohibit the THDWID from collecting amounts owed for water services by any former THDWID Member after the former THDWID Member has relinquished title or ownership of a Parcel.
21. The Parcel Owner shall notify THDWID whenever tenants who are paying water service bills change and shall provide new tenant contact information. The Parcel Owner shall notify new tenant of THDWID policies and procedures.



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THDWID NEW BUILD/REMODEL WATER CONSIDERATIONS

Tonto Hills Utility Company (THUC) acquired a water allocation of 71 acre-feet per year (AF/yr) from the Central Arizona Water Conservation District (CAWCD) via the Central Arizona Project (CAP) canal and brought it online in March 2004. This allocation was one of the assets purchased by the Tonto Hills Domestic Water Improvement District (THDWID) in December 2010. Currently, the CAP supply is the only feasible long-term source of water for Tonto Hills.

In accordance with our state-required Conservation Plan, the THDWID Board is preparing for unforeseen interruptions in CAP water supply by banking our unused CAP allocation at a Groundwater Savings Facility and obtaining long-term storage credits against which Scottsdale can pump groundwater in lieu of CAP water to temporarily continue meeting our needs, if necessary.

It must be strongly emphasized that our water supply is secure and the likelihood of a shortage is low. We estimate our current resources could support an average monthly use of about 7,250 gallons per parcel at full build out. The fact remains that our supply is based on an allocation system that does not provide unlimited water to our community. Therefore, it is important to recognize this limitation and that excessive water use by THDWID members can impact the sustainability of our water supply.

To lessen the likelihood of a shortage, the THDWID Board of Directors has adopted the following recommendations and requirements for new build and applicable remodel applicants. Please note that for **all parcels zoned commercial**, THDWID has adopted a policy of **mandatory Reduced Pressure Principle (RP) Backflow Prevention Assemblies** to be installed and tested prior to occupancy (see Policies and Procedures).

FOLLOWING ARE RECOMMENDATIONS:

- **TOILETS:** Toilets should be the high efficiency type that uses 1.6 gallons or less per flush. A family of four can save 14,000 to 25,000 gallons of water per year using these as opposed to the older type of toilets.
- **SHOWERHEADS:** Showerheads should be of the high efficiency type with a flow rate of 2.5 gallons per minute or less. Showering typically accounts for approximately 17% of



indoor water use. The high efficiency showerheads can achieve water savings of 25% to 60% over older models.

- **FAUCETS:** Consider using faucets with the “WaterSense” label. Faucets typically account for about 15% of indoor water use. “WaterSense” bathroom sink faucets can reduce water flow by 30% without sacrificing performance. “WaterSense” is an EPA program having partnership agreements with many manufacturers.
- **DISHWASHERS:** Consider installing an “EnergyStar” qualified model. An old style dishwasher can waste about 10 gallons of water per cycle.
- **CLOTHES WASHERS:** Consider installing an “EnergyStar” qualified model. High efficiency washers use 35% to 50% less water and 50% less energy per load. The model should also have a low water factor. A water factor is the number of gallons per cycle per cubic foot that a clothes washer uses. If a washer uses 18 gallons per cycle and has a tub volume of 3.0 cubic feet, the water factor is 6.0. The lower the water factor, the more efficient the washer. Some models have load sensing capability and adjust the amount of water used based on the size of the load.
- **OUTDOOR PIPES:** Tonto Hills experiences freezing weather a few times per year. This can result in burst pipes and many gallons of wasted water. Consider insulating pipes. Use heat tape or thermostatically controlled heat cables to wrap pipes. (Use products approved by Underwriters Laboratories and follow instructions carefully.) Also, seal leaks that allow cold air to enter where pipes are located. Look for air leaks around electrical wiring, dryer vents, and pipes.
- **LANDSCAPING:** Consider landscaping with low-water requirement desert plants. Go to http://www.amwua.org/advanced_search.html for an appropriate desert plant search engine. Turf or grass planting should not exceed 25 square feet. Consider equipping drip systems with rain shut-off devices or soil moisture sensors. Consider decorative rain barrels to catch rain for landscape watering. These barrels are available for around \$100.
- **ON-DEMAND HOT WATER:** A family of four wastes 10,000 to 15,000 gallons of water annually running faucets while waiting for hot water. There are several types of on-demand hot water systems including: recirculating pumps, demand type pump systems, thermo-siphon systems, and point-of-use water heaters. The downsides of these systems are initial costs and on-going energy costs. To minimize ongoing energy costs, insulate all pipes and install a timer to turn the systems on/off tied to showering hours. Another consideration is a tank-less water heater running on propane located near the primary shower or a small capacity 110-volt electric under sink water heater.



- **HUMIDIFIERS:** Many new homes are built with humidifier systems as part the HVAC system. The two types of humidifiers available are evaporative and steam. The model of evaporative humidifier varies depending on the size of the house. (Consider cubic feet measurements if ceilings are high.) These humidifiers can use from 3 gallons per hour (gph) to 6 gph. If a 6-gph humidifier ran constantly, it could use 4,320 gallons in a month. Many factors impact actual usage, but assuming it ran about 6 hours per day; the monthly total would be 1,080 gallons. For each gallon used in humidifying, 5 gallons go down the drain. To ensure the unit runs only when needed, install a digital humidistat. Steam humidifiers use only 0.6 to 1.8 gph with very little going down the drain. The downside is that they use 11.5 amps vs. less than 1 amp for a large evaporative humidifier.
- **GREY WATER RECOVERY SYSTEMS:** Consider recovering water from laundry, dishwashers, or showers. There are a number of commercially available grey water systems as well as do-it-yourself project plans that can be found via the internet. The THDWID does not endorse any specific system. A simple generic system can be found on the internet at www.greywateraction.org.

FOLLOWING ARE REQUIREMENTS:

- **SHUT-OFF VALVES:** All THDWID Members who have or request connection to the THDWID's system shall install and maintain a private shut-off valve. The THDWID shall provide a like valve on the THDWID's side of such meter. The THDWID also recommends the installation of one or more pressure reducing valves (PRVs) on the Customer's side of the meter at the Customer's expense to regulate water pressure and prevent over-pressure damage to appliances and other equipment. The THDWID shall not be responsible for the effects of high water pressure on the Customer's side of the meter. The THDWID requires backflow prevention devices.
- **POOL COVERS:** A 600-square-foot pool has approximately 34,000 gallons of water evaporation each year. This figure can vary depending on humidity (low humidity means higher evaporation), air temperature vs. pool temperature (the cooler the air in relation to the pool, the more evaporation), solar exposure, and wind. A pool cover can prevent most of this evaporative water loss. A low-cost pool cover is a solar cover. They look similar to packing material, but have UV inhibitors and a thicker grade of plastic. There is also a variety of vinyl covers. Pool covers come with manual, semi-automatic, or automatic pool cover retraction. As of 2014, a basic cover for a 450-square-foot pool costs about \$80; a storage reel costs about \$160. A high quality insulating pool blanket costs about \$700. A pool cover in Phoenix can reduce energy costs by \$2,000 annually and reduce chemical costs.



- **NEGATIVE EDGE POOLS:** Negative edge pools have higher rates of evaporation than regular pools and standard pool covers are less effective. *Negative edge pools are not permitted unless an automatic pool cover designed specifically for this type of pool is built-in as part of the construction.*
- **BACKFLOW:** The complete backflow prevention requirements for all members are available in the THDWID Policies and Procedures. The following is a brief summary:

A.A.C. R18-4-215 E1, which states, “A public water system may make installation of a required backflow prevention assembly a condition of service. A user’s failure to comply with this requirement shall be sufficient cause for the public water system to terminate water service.” The THDWID has adopted a policy requiring installation of backflow prevention assemblies as a condition of initial and continued water service where cross-connections pose a potential threat to the THDWID water system.

As mentioned earlier, the THDWID has adopted a policy of ***mandatory Reduced Pressure Principle (RP) Backflow Prevention Assemblies for all parcels in the District zoned commercial*** to be installed and tested prior to occupancy (see Policies and Procedures).

The THDWID requires that residences and commercial properties be in compliance with Section P2902.1 of the International Residential Code for One- and Two-Family Dwellings. Section P2902.1 states, “A potable water supply system shall be designed and installed as to prevent contamination from non-potable liquids, solids, or gases being introduced into the potable water supply. Connections shall not be made to a potable water supply in a manner that could contaminate the water supply or provide a cross-connection between the supply and a source of contamination unless an approved backflow prevention device is provided. Cross-connections between an individual water supply and a potable water supply shall be prohibited.”

THDWID also requires pressure vacuum breakers on all hose bibs used to fill water reservoirs, such as horse troughs, etc., to prevent backflow. Backflow prevention devices should be inspected annually.

The following are the recognized types of backflow prevention assemblies that the THDWID requires (see Policies and Procedures for details):

- 1) **Air gap:** The unobstructed vertical distance through free atmosphere between the lowest point of a water supply outlet, pipe, or faucet supplying potable water to a tank, plumbing fixture, or



other device and the flood level rim of the tank, plumbing fixture, or other device. An approved air gap shall be at least twice the diameter of the supply pipe or faucet and in no case less than one (1) inch.

- 2) Reduced pressure principle assembly ("RP"): A backflow prevention assembly containing two independently-acting approved check valves together with a hydraulically-operating, mechanically-independent pressure differential relief valve located between the check valves, and at the same time below the first check valve. The assembly shall include properly located test cocks and tightly closing shutoff valves at each end of the assembly.
- 3) Double check valve assembly ("DC"): A backflow prevention assembly composed of two independently-acting, approved check valves, including tightly-closing shutoff valves located at each end of the assembly and fitted with properly located test cocks.
- 4) Pressure vacuum breaker assembly ("PVB"): A backflow prevention assembly containing an independently-operating, loaded check valve and an independently-operating, loaded air inlet valve located on the discharge side of the check valve. The assembly shall be equipped with properly located test cocks and tightly-closing shutoff valves located at each end of the assembly.



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TONTO HILLS WATER SUPPLY AND DEMAND

BACKGROUND AND SAFETY OF WATER SUPPLY

Tonto Hills Utility Company (THUC) acquired a water allocation of 71 acre-feet per year (AF/yr) from the Central Arizona Water Conservation District (CAWCD) via the Central Arizona Project (CAP) canal and brought it online in March 2004. Under an intergovernmental agreement, City of Scottsdale draws our water allocation from the CAP canal, treats it with its own CAP allocation, and delivers it to us via the Desert Mountain water distribution system. Therefore, our water is effectively Scottsdale water and includes Scottsdale well water. The water is then stored in our hillside water tank from which it is distributed by gravity to our customers via more than 6 miles of pipeline within Tonto Hills. This “surface water” supply replaced a groundwater supply that was provided by two aging THUC water wells that were located on nearby U.S. Forest Service property, had quality and quantity issues, and could not keep pace with the water demand. The Tonto Hills Domestic Water Improvement District (THDWID) acquired THUC’s assets in December 2010, but the federal leases for the THUC well sites were not transferred to THDWID and, due to quality issues and low production from the granite aquifer, local wells are no longer a practical option for Tonto Hills. Currently, the limited CAP supply is the only feasible long-term source of water for Tonto Hills.

Our CAP water allocation is classified as Municipal and Industrial, which means that we hold a significant priority over other major users of CAP water, such as all agricultural and excess water contracts and recharge projects. In fact, only the Indian long-term contract entitlements have a higher priority on the CAP system. Arizona Department of Water Resources (ADWR) reports that the risk of our allocation being reduced due to prolonged drought conditions is low. If cuts to the CAP system occur, they are borne by lower priority water users first. If a prolonged drought condition eventually requires any reductions in allocations at our priority level, they would be shared equally on a percentage basis among all the other municipalities and industries in our classification and that reduction would likely be small. These factors indicate that our water supply will last for the foreseeable future (our renewable CAP contract term is 100 years) and that any interruptions of the CAP system will be temporary in nature and will be due chiefly to operation and maintenance issues. In addition, none of these projections of drought risk take into account implementation of effective water conservation measures that would surely occur and reduce water demand across the CAP-supplied system.



The THDWID Board is committed to providing sufficient potable water for its members within the limits of the available resource. We are preparing for unforeseen interruptions in CAP water supply by banking our unused CAP allocation at a Groundwater Savings Facility. By banking, we obtain long-term storage credits against which Scottsdale can pump groundwater in lieu of CAP water to continue meeting our needs, if necessary. In addition, we have identified water-trucking companies that could help us through short-term local interruptions in the Scottsdale water system or in our own distribution system. Other ongoing efforts include potential acquisition of additional CAP water supply through the phased ADWR reallocation of Non-Indian Agriculture water. The THDWID New Build/Remodel Policy was first developed in 2014 to encourage design of new homes and renovation of existing homes to be consistent with our long-term water management goals and to discourage designs that could put new members at risk of having insufficient water for full enjoyment of their homes when we approach full build-out.

SUSTAINABILITY AND WATER DEMAND

The Board has also analyzed our potential water demand at full build-out of the Tonto Hills community to determine the sustainability of our current rates of use and to plan ways to keep our supply sustainable in the coming decades. It is difficult to predict exactly how many homes will be built in our subdivision because there are some parcels that may not be buildable due to the terrain.

Based on our useable CAP allocation and the current maximum number of parcels that could potentially be developed at “full build-out” (225), the Board projects that there will be sufficient water to supply about 87,000 gallons per year (gal/yr) to each residential/commercial customer at full build-out if everyone used the same amount of water. This amount is equal to an average monthly supply of about 7,250 gallons per lot. This amount is consistent with the per capita usage assumed by the ADWR for communities like ours. The bases for these projections include:

1. Only **60 AF/yr** (or 84.5%) of our 71-AF/yr allocation is estimated to be useable based on the following assumptions:
 - a. Pipeline and storage losses of **5%**, which are claimed by Scottsdale for delivering the water to us (per our Scottsdale contract for treatment and delivery of our CAP allocation).
 - b. Pipeline losses up to about **10%**, which occur within Tonto Hills before water reaches the customers. During 2011-2017, average annual internal losses ranged from 13.1% in 2013 to 8.3% in 2016; overall average was 10.8%. Losses have been reduced to less than 10% in 2015-2017 through



management practices (meter replacement, improvement in meter accuracy and leak detection, etc.). Standard loss rate in the industry is 10% to 15%.

- c. The landscaping at the front entrance of Tonto Hills is assumed to use an average of about 10,000 gallons per month (0.4 AF/yr), or about **0.5%** of our total allocation.
2. There are 203 residential and 22 commercial parcels that have or could have water service at full build-out; total is **225**.
3. No long-term reductions in our allocation due to drought or other causes are assumed to occur (external factors that may decrease our useable allocation include: cut backs to Municipal and Industrial CAP allocations due to drought; interruption of CAP supply due to terrorist attacks or canal maintenance/repairs; ADWR actions taken due to unsustainable population growth; etc.).

Unlike large municipalities in the valley, THDWID has a finite source of CAP water that cannot be augmented by pumping groundwater from our own wells. Therefore, the Board believes it is fair and reasonable for both current residents and unbuilt parcel owners to expect an equal share of the limited water resource if they need it, regardless of their current water demand. Otherwise, some THDWID members might not have sufficient water if others use excessive amounts of water. Using the 60 AF/yr of useable allocation described above and assuming the THDWID will have to supply water to 225 parcels at full build-out, the equal per-lot-share would be about **87,000 gal/yr**, which is equal to an average use of **7,250 gallons per month**.

More than 76% of the customers (104 of 136) used *less than* 87,000 gallons in 2016 and most of these customers used far less than this amount. Nearly 24% of the customers (32 of 136) used *more than* this “equal share” amount; the top 10 users used more than twice this amount (185,000 to 346,000 gallons).

Future Boards should change this “equal share” threshold accordingly if the useable allocation changes or better information becomes available over time for the assumptions used in the calculations. The threshold is intended to be the demarcation on which the Board can base high-use tiers in the rate schedule and, further, can consider restrictions and levying of fines for overuse when water resource conditions are critical.

The THDWID is far from needing to institute substantive restrictions, unless external factors threaten our water supply, because:



1. As of December 2017, THDWID was only 60% of projected full build-out.
2. In 2016, the median and mean customer metered water use in the THDWID was only 63% and 80%, respectively, of the estimated 87,000 gal/yr "equal share".
3. As a community, metered water use in 2016 was only 48% of the estimated 60 AF/yr useable allocation.

However, in the long term, the concern is that the percentage of use by each customer could change to a point that it is not sustainable for the community as we approach build-out. At that point, substantive measures will be necessary to bring excessive water users in line with the rest of the community. The responsible approach is to inform THDWID members of the limitations of our water supply so that customers can monitor their use and work to bring it down to a sustainable level and so that new home builders can design features compatible with the equal share threshold of sustainable water use.

ACTIONS TAKEN TO ASSURE SUSTAINABILITY

To address these issues and to provide a sustainable water supply for all THDWID members, the Board believed it was prudent to establish a new commodity rate schedule on January 1, 2014 that can be used in conjunction with THDWID's Conservation Plan, which is required by the State of Arizona. The Board considered the pre-2014 usage characteristics and commodity rates for our community, rate structures for nearby towns and communities, and the potential impacts to water bills of current and future THDWID residents. Design of the 2014 rate schedules included numerous iterations of alternative rates using 2012 actual meter readings to arrive at a structure that:

1. Has no impact on existing/future customers that use no more than 13,000 gallons per month.
2. Has no significant impact on even the highest users until Conservation Stages 3 or 4 are reached (expected to be decades into the future at current home building rates, unless external factors threaten our water supply).
3. Provides future Boards with the tools to incentivize users to conserve when required.

The 2014 conservation water rate schedules retain Tiers 1 and 2 of the previous 3-tier schedule, but add three new tiers for high water use. This structure is consistent with rate schedules for many nearby municipalities, including Cave Creek, Carefree, and Scottsdale. The Conservation



Plan includes restrictions on certain types of water use at various stages of threat to our water supply, as well as consumer education and counseling on water conservation. In addition to the 2014 rate schedule, the THDWID Board will be able to levy fines and impose other restrictions when necessary during Conservation Stages 3 and 4 to provide further incentives to reduce water usage to sustainable levels.

PRIOR WATER RATE SCHEDULES vs. 2014 CONSERVATION RATE SCHEDULES					
COMMODITY RATES PER 1,000 GALLONS PER MONTH					
(Zero Gallons Included in \$40 base rate)		2013 and prior	2014 (Stages 1 & 2)	2014 Stage 3	2014 Stage 4
1st Tier: 0 – 4,000 Gallons	\$	6.80	6.80	6.80	6.80
2nd Tier: 4,001 – 13,000 Gallons	\$	10.20	10.20	10.20	10.20
3rd Tier: 13,001 – 20,000 Gallons	\$	12.30	12.30	15.00	20.00
4th Tier: 20,001 – 30,000 Gallons	\$	12.30	12.42	20.00	40.00
5th Tier: 30,001 – total usage	\$	12.30	12.55	30.00	70.00

The THDWID Conservation Plan gives detailed descriptions of the conservation measures to be taken in four stages, based on water supply conditions. The Conservation Rate Schedules for Stages 3 and 4 would become effective when the following conditions occur:

Stage 3: Any combination of build-out, water use, and adjustments to useable allocation causes **80% or more of the total useable allocation** to be used

Stage 4: Any combination of build-out, water use, and adjustments to useable allocation causes **90% or more of the total useable allocation** to be used

Note that adjustments to useable allocation could be caused by internal factors (differences in the assumed 10% unmetered water loss) or external factors (reduction in CAP or local water supply).

The Board makes decisions annually regarding implementation of the Conservation Rate Schedules at the February THDWID Board meeting so that an announcement can be made at the Annual General Meeting in late March. Decisions are based on the usage data for the previous year. If implemented, the Stage 3 or 4 Conservation Rate Schedules would be applied beginning with the water invoices for April of that year and would continue until a different conservation stage is declared. The Board may implement Stage 3 or 4 rates at other times based on the then-current water supply conditions and it intends to provide ample advance notice to the THDWID customers to allow them to alter their use patterns to avoid the high-use rates and potential fines.

APPENDIX D

THDWID ASSESSMENT BILLING COMPUTATION PROCESS

**TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT
ASSESSMENT BILLING COMPUTATION PROCESS**

APRIL & OCTOBER

Update detailed [electronic] "Parcel-by-Parcel Roll-Forward" from previous billing
Reconcile to General Ledger
 Ensure that all receipts are posted in detail (principal, interest admin & late fees)
 Provide data to adjust GL for interest, late fees and admin fees collected

Set up separate [electronic] file for new semiannual billing

Save as a new [electronic] file the detailed "Data Base" from previous semiannual billing, and update for
 New owners – ideally from deed of trust
 Revise addresses (returned mail, etc.)
 Post all collections including date received
 Post late fee based on date collected

Confirm with Board re semiannual installment amount, including admin fee

Compute installment and full pay optional payment amounts by parcel

Update Invoice/Remittance Advice and Cover Letter(s) language

End-of-month: Mail-merge Data Base info into Invoices & Cover Letters

MAY 1 AND NOVEMBER 1

Ensure Foothills Accounting stuffs and mails assessment cover letters and invoices

MAY 15 AND NOVEMBER 15

Ensure Foothills Accounting has provided you with any mail returns for re-addressing & re-mailing

Obtain receipts information from Foothills Accounting and post to Data Base

JUNE 1 AND DECEMBER 1

Ensure Foothills Accounting has provided you with any additional mail returns for re-addressing & re-mailing

Obtain receipts information from Foothills Accounting and post to Data Base – any received thereafter incur late fee

JUNE 15 AND DECEMBER 15

Post receipts to Data Base noting tardy date received

Follow-up with non-payment parcel owners

Consider auction process for parcel owners with 2 consecutive non-payments

ONGOING

Post late receipts to Data Base noting tardy date received

Calculate full payoffs on demand, typically from realtor or escrow officer requests; document District's quotes, obtain new deeds and new owner contact information and post to "Roll Forward;" give to District clerk

Retain from every source data re changes of ownership of parcels and addresses of owners

APPENDIX E

AUCTION WARNING LETTER

Tonto Hills Domestic Water Improvement District
11228 East HoHoKam Lane
Cave Creek, AZ 85331
480-595-0128
E-mail: tontohillsdwid@tontohills.org

VIA U.S. REGISTERED MAIL

August 3, 2011

Owner Name(s)
Address 1
Address2

Re: Delinquency Notice on Special Assessment Due re Acquisition of Assets of Tonto Hills Utility Co & for Certain Improvements

Parcel Number 219-12-XXX

Dear Owner Name(s):

The District has not received your assessment installment payments on subject parcel. The first installment was billed on February 5, 2010 and was due on or before March 17, 2010. The next installment was billed on May 1, 2011 and was due on or before June 1, 2011. In accordance with Arizona Revised Statutes, 5% delinquency penalties have been assessed on each installment. The delinquent payments, together with the penalties and accrued interest through September 1, 2011, at a 3.383% annual rate, from December 17, 2010 for the first installment, and from July 1, 2011 for the second installment, aggregate to \$338.84.

This is to notify you that, if \$338.84 in good funds is not received by this District on or before September 1, 2011, then, upon statutory notice, \$3,702.47, representing the original assessment, penalties and interest on your parcel will become due pursuant to Arizona Revised Statutes. The District has a fiduciary responsibility to the paying members of the District to sell properties with delinquent assessments at public auction, and is allowed to recover all costs related to the auction.

As previously noted, a lien has been recorded against the parcel with Maricopa County until the assessment, plus interest, penalties and costs, if any, are retired in full.

If you no longer own the above-described property, kindly immediately advise the District in writing.

Sincerely,

Robert Swan

Robert Swan
Chairman of the Board of Directors

APPENDIX F

AUCTION FINAL NOTICE

**TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT
FINAL NOTICE
ASSESSMENT BILL**

December 12, 2011

PLEASE READ CAREFULLY. This is to notify you that the District has not received your payments that were due **March 17, 2010, June 1, 2011 and December 1, 2011 to the Tonto Hills Domestic Water Improvement District.** Pursuant to Arizona Revised Statutes, Title 48, Chapter 6, Article 1 your property is listed as delinquent. For the property listed below, unless each delinquent installment, together with the penalty and costs thereon, is paid, the whole amount of the assessment on such property will be declared due, and the property, upon which the assessment is a lien, will be sold at public auction. **THE PROPERTY WILL BE SOLD AT PUBLIC AUCTION TO RECOVER THE ENTIRE ASSESSMENT AMOUNT PLUS PENALTIES AND COSTS OF THE SALE. COSTS WILL BE AT LEAST \$385.00.** The date of February 15, 2012 has been fixed for the sale of the property. The District will continue proceedings for the sale of the property if the District has not received payment by 4:30 P.M. on February 12, 2012.

Owner: District Name: Tonto Hills Domestic Water Improvement District
Assessment Number: 2010-02-05
Parcel Number: 219-12-

Legal Description: Lot , of TONTO HILLS, according to the plat of record in the office of the County Recorder of Maricopa County, Arizona, recorded in Book 93 of Maps, Page 5

DELINQUENT PAYMENT DUE ON OR BEFORE FEBRUARY 12, 2012

MAKE CASHIERS CHECK PAYABLE TO: "TONTO HILLS DWID"
MAIL PAYMENTS TO: TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT
PO BOX 4648
CAVE CREEK, AZ 85327-4648
PHONE: 480-595-0128

Past Due:	\$451.82
Late Penalty:	22.59
Fees:	0.00
Other:	<u>385.00</u>
Total Due:	\$859.41

**RETURN THIS STUB WITH REMITTANCE
DELINQUENT PAYMENT DUE ON OR BEFORE FEBRUARY 12, 2012**

District Name: Tonto Hills Domestic Water Improvement District
Assessment Number: 2010-02-05
Parcel Number: 219-12-
Owner:

Past Due:	\$451.82
Late Penalty:	22.59
Fees:	0.00
Other:	<u>385.00</u>
Total Due:	\$859.41

APPENDIX G

AUCTION NOTICE TO INTERESTED PARTIES

Tonto Hills Domestic Water Improvement District
11228 East HoHoKam Lane
Cave Creek, AZ 85331
Phone: 480-595-0128

December 12, 2011

TO:

PLEASE NOTE: Our records indicate that you MAY have an interest in the property listed below.
If you do, **please read this notice carefully!**

**NOTICE OF DELINQUENT ASSESSMENTS AND IMPENDING SALE PURSUANT TO
§ARS 48-939 FOR THE TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT**

NOTICE IS HEREBY GIVEN that installments are delinquent on assessment number 2010-02-05 in the Tonto Hills Domestic Water Improvement District of Maricopa County, Arizona for the following property:

Assessors Tax Parcel Number: 219-12-

Legal Description: Lot , of TONTO HILLS, according to the plat of record in the office of the County Recorder of Maricopa County, Arizona, recorded in Book 93 of Maps, Page 5

NOTICE IS FURTHER GIVEN that, for the property listed above, unless each delinquent installment, together with the penalty and costs thereon, is paid, the whole amount of the assessment on such property will be declared due, and the property, upon which the assessment is a lien, will be sold at public auction.

The total amount due as shown on the attached Assessment Bill must be received at or before 4:30 P.M. on February 12, 2012. Payment must be by cashiers check. If any portion of the amounts due remain unpaid after 4:30 P.M. on February 12, 2012, the property will be sold at a public auction to be held on February 15, 2012 at 10:00 A.M. at a vacant lot (tax parcel 219-12-219A) at the northeast corner of North Old Mine Road and North LaPlata Road in the Tonto Hills subdivision of Maricopa County, Arizona.

Each lot separately assessed shall be offered for sale separately. Buyer will receive a Certificate of Sale. The sale shall be for the entire assessment, including any delinquent installments, penalties and costs due.

For further information please contact Charles Civer or Robert Swan, 11228 East HoHoKam Lane, Cave Creek, AZ 85331, telephone 480-595-0128 and leave contact information.

THIS IS THE ONLY NOTICE YOU WILL RECEIVE.



Louis Frederick, Superintendent
Tonto Hills Domestic Water Improvement District of
Maricopa County, Arizona

APPENDIX H

AUCTION NEWSPAPER ADVERTISEMENT

**NOTICE OF DELINQUENT ASSESSMENTS
AND NOTICE OF SALE PURSUANT TO ARS §48-939**

NOTICE IS HEREBY GIVEN that installments are delinquent on the following assessments in the **Tonto Hills Domestic Water Improvement District** of Maricopa County Arizona, as shown on the District records as of December 12, 2011:

ASMNT NO: _____
PARCEL NO: _____
LEGAL DESCRIPTION: _____
OWNER OF RECORD: _____
SALE AMOUNT: _____

2010-02-05	219-12-	Lot ____, of TONTO HILLS, according to the plat of record in the office of the County Recorder of Maricopa County, Arizona, recorded in Book 93 of Maps, Page 5	\$4,174.30
2010-02-05	219-12-	Lot ____, of TONTO HILLS, according to the plat of record in the office of the County Recorder of Maricopa County, Arizona, recorded in Book 93 of Maps, Page 5	\$4,174.30
2010-02-05	219-12-	Lot ____, of TONTO HILLS, according to the plat of record in the office of the County Recorder of Maricopa County, Arizona, recorded in Book 93 of Maps, Page 5	\$4,174.30
2010-02-05	219-12-	Lot ____, of TONTO HILLS, according to the plat of record in the office of the County Recorder of Maricopa County, Arizona, recorded in Book 93 of Maps, Page 5	\$4,174.30

NOTICE IS FURTHER GIVEN that for each property listed above, unless each delinquent installment, together with the penalty and costs thereon, is paid, the whole amount of the assessment on such property will be declared due and the property upon which the Assessment is a lien will be sold at public auction at the following time and place or at any time thereafter to which the sale may be adjourned:

DATE: February 15, 2012

TIME: 10:00 a.m.

PLACE: At the intersection of Old Mine and La Plata Roads

Each lot separately assessed shall be offered for sale separately and the sale shall be for the entire assessment including any delinquent installments, penalty and costs due, including fifty (50) cents to the Superintendent of Streets for a Certificate of Sale. Unless redeemed within the time allowed by law (ARS 48-943), a superintendent's deed will be delivered to the purchaser and the superintendent's deed shall convey title to the lands described therein free and clear of all interests and liens, except for the lien for general property taxes and prior special assessments.

For further information, please contact Charles Civer or Robert Swan, 11228 East HoHoKam Lane, Cave Creek, AZ 85331, telephone 480-595-0128.

APPENDIX I

AUCTION INFORMATION TO BIDDERS

INFORMATION FOR BIDDERS
AT ASSESSMENT LIEN SALE ON
FEBRUARY 15, 2012

The following information is for bidders at the Superintendent's sale of delinquent assessments for the Tonto Hills Domestic Water Improvement District, Maricopa County, Arizona.

While the Arizona Statutes in part reference the sale of property (see ARS §48-924(a)) the more correct characterization is a sale of the lien of the assessment found in ARS §48-942(b)), which states:

On filing the copy of the certificate in the office of the superintendent, the lien of the assessment shall vest in the purchaser, and is only divested by a redemption of the property, provided by this article.

However, because Arizona is a record title state, it may be advisable to record any Certificate or Assignment of Certificate with the Maricopa County Recorder's Office.

The District will sell each assessed parcel with its attached liens individually. The liens for the property will be sold to the bidder paying the full amount of the assessment, penalties, costs and fees and taking the least amount of property.

A bid number will be drawn and if you have the matching bid number you will be asked if you want the assessment lien for the property or not. If you do not want the assessment lien for the assessed parcel, another number will be drawn until there is a bidder to purchase the assessment lien.

Thereafter other interested bidders may declare their purchase of the lien will include a lesser amount of property they are willing to take. Bids will be expressed in writing as a specific area within the area of the assessed parcel.

Although the law requires that bidders be allowed to bid for liens that will attach to less than all of the property, the properties and any portion thereof still remain subject to all zoning, building code, development and other limitations on and regulation of use, including minimum lot size requirements. Properties to which the liens attach which are offered for sale may also be subject to conflicting liens and claims including future assessment liens due to ongoing projects within the district.

EACH BIDDER PURCHASES AT HIS OR HER OWN RISK. THE DISTRICT, THE COUNTY AND THEIR OFFICERS, EMPLOYEES AND AGENTS MAKE NO REPRESENTATIONS OR WARRANTIES AS TO ANY MATTER WITH RESPECT TO ANY PROPERTY OR PORTIONS OF PROPERTY SOLD, INCLUDING WITHOUT LIMITATION, THE BUILDABILITY, USE, USABILITY, MARKETABILITY OR VALUE OF ANY PROPERTY OR PORTION OF PROPERTY SOLD, ANY DEFECTS IN ANY PROCEEDINGS UPON WHICH THE SALE IS BASED, OR THE EXISTENCE OF ANY PRIOR OR COMPETING LIEN OR CLAIM ON ANY PROPERTY OR PORTION OF PROPERTY SOLD.

Each successful bidder must fully pay for the assessment liens purchased at the end of sale. Initial payment may be made with cash or a personal or business check. However, any personal check must be replaced with cash or certified funds such as a cashier's check by not later than 3:30 P.M. Arizona time, today, with such funds being received by either Deb or Debbie at Foothills Accounting (the Tonto Hills Domestic Water Improvement District's accounting office) located at 6702 E. Cave Creek Road in the

town of Cave Creek, Arizona.

Liens and property to which they are attached purchased at the sale may be redeemed at any time within thirteen (13) months from the date of the sale and any time thereafter until the Superintendent Deed is issued. Superintendent's Deeds issued upon compliance with statutory and constitutional requirements include those in summarized in ARS §48-944 if there has been no redemption. The purchaser or the purchaser's assignee can obtain a Superintendent's Deed to the property then subject to the other senior matters of record.

There are statutory and constitutionally mandated procedures which must be followed by a purchaser to secure a Superintendent's Deed to the property following the end of the redemption period. **IT IS THE PURCHASER'S RESPONSIBILITY TO STRICTLY COMPLY WITH SUCH PROCEDURES, INCLUDING THE REQUIREMENTS FOR FURNISHING REASONABLE NOTICE AND OPPORTUNITY FOR INTERESTED PARTIES TO REDEEM.**

It is appropriate for the purchaser receiving a Superintendent's Deed to obtain title insurance. Title insurance would be obtained by the purchaser's action and at the purchaser's cost. Due to the difficulty in determining if due process has been followed in each case, title insurance companies often require a quiet title action by the Deed holder after the receipt of the Superintendent's Deed. If there is an occupied structure on the property, an action for possession may also be necessary.

Applicants should consider consulting an attorney and the title company of their choice in connection with the required procedures.

This information is not represented as being complete as to every aspect of the process. This information is neither legal advice nor tax advice. Each bidder should consult with his/her/its own legal counsel and tax advisor to receive any advice that may be desired.

Louis Frederick
Superintendent
Tonto Hills Domestic Water Improvement District of Maricopa County, Arizona

INFORMATION FOR BIDDERS
AT ASSESSMENT LIEN SALE ON
FEBRUARY 15, 2012

By signing below, I acknowledge receiving and reading the two page document entitled INFORMATION FOR BIDDERS AT ASSESSMENT LIEN SALE ON FEBRUARY 15, 2012 prior to the commencement of the auction.

Signature

Printed Name

APPENDIX J

AUCTION PROCEDURES FOR THE SALE

TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT PROCEDURE FOR THE SALE OF DELINQUENT ASSESSMENT LIENS

1. SUPERINTENDENT OF STREETS

- Asks if there is anyone present who wishes to pay assessment currently due and outstanding
- Announces that the sale will now begin.
- Describes sale process
 - Parcels sold one at time as individual units.
 - Minimum bid is total outstanding assessment plus penalties and costs.
 - If only one bidder - award bid.
 - If more than one bidder - bidders bid the smallest amount of the parcel land area they will accept.
 - Award bid to bidder agreeing to take least amount of property.
 - If more than one bidder - select opening bidder by lottery.
 - Initial payment may be with cash or a personal check; however a cashier's check, cash or certified check must replace personal check by 3:30 pm, Arizona time the day of the sale.

2. LEGAL ASPECTS

Legal aspects of process

- Bidders purchase at their own risk.
- All zoning, building and real estate laws and regulations still apply, including minimum lot size requirements, subdivision rules, sewage and water requirements.
- No representations by the District, County or officers, employees or agents of either with respect to any parcel including without limitation any as to buildability, use, usability, marketability, condition of title, boundaries, value, defects in procedure, competing claims or liens, or value.
- Any person or entity holding title interest may redeem the lien within 13 months or until Superintendent's Deed issues.
- A purchaser of the lien or purchaser's assignee can upon proper application receive a deed after 13 months if no redemption.
- At least a 30-day notice of application for deed must be provided to all parties with an interest in the property, including the Maricopa County Treasurer. Interests in the property should be evidenced by a title report from an Arizona title company, obtained by the purchaser at the purchaser's cost.
- It is suggested that purchasers receiving a Superintendent's Deed consider obtaining a title policy.
- If a bid is for lien which is attaching to less than all the property, or for purposes of otherwise conforming boundaries and any encroachments to or from the property involved, a purchaser may desire to obtain an ALTA survey and an ALTA title policy.
- No environmental assessment(s) have been performed on any properties; any bidder desires such information should have such assessments performed at his/her/its own expense.
- Title companies may require a quiet title action after deed; purchasers should confer with their own attorney for legal advice and with respect to procedures.
- Purchasers should confer with their own tax advisors regarding tax matters.

3. ANSWER QUESTIONS

4. BEGIN SALE

APPENDIX K

SUPERINTENDENT AUCTION INTRODUCTION

SUPERINTENDENT'S PUBLIC AUCTION INTRODUCTION

Welcome to Tonto Hills Domestic Water Improvement District's sale of delinquent assessments. My name is Lou Frederick, Superintendent of the District.

Publication of the Notice of this auction has been made in the Arizona Republic and each lot owner and lien holder has been notified by certified mail, in accordance with Arizona Revised Statute 48-939.

The assessments being auctioned today relate to four parcels in this community, 219-12-XXX, XXX, XXX and XXX. The sale price for each is \$4,274.30. The sale price includes the entire assessment, delinquent installments, penalties and costs.

The auction will be held on an open bid basis. The assessments will be sold separately. The sale price is fixed. The person bidding, who will take the least quantity of land, and then-and-there pay the sale price to the Superintendent for a Certificate of Sale, shall be the purchaser.

Unless the Certificate of Sale is redeemed in accordance with ARS 48-943, on or after March 15, 2013 a deed will be delivered to the Certificate of Sale purchaser, free and clear of all interest and liens except for general property taxes in accordance with ARS 48-944.

All four delinquent assessments are being auctioned today without any representations or warranties from the District and are on an "as is" basis.

Each prospective bidder should sign-in on this list [*showed legal-sized page*] and obtain a numbered paddle. Registered bidders will complete a bid sheet for each property on which they are submitting bids. The bid sheet must indicate the parcel number and location. All registered bidders will have a designated bidders' number and will display this in connection with their bid.

The District will give a 2-minute notice as to when bidding will close on each parcel.

A plat of the Tonto Hills subdivision is available for inspection at the Superintendent's table.

The District may defer all or a portion of the auction.

Has every bidder read the 2-page document entitled "INFORMATION FOR BIDDERS AT ASSESSMENT LIEN SALE ON FEBRUARY 15, 2012"?

Are there any questions on the process we will follow?

Let's begin. Here is District Board member Charles Civer.

APPENDIX L

**TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT
STORAGE TANK SYSTEM**

TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT STORAGE TANK SYSTEM

INTRODUCTION

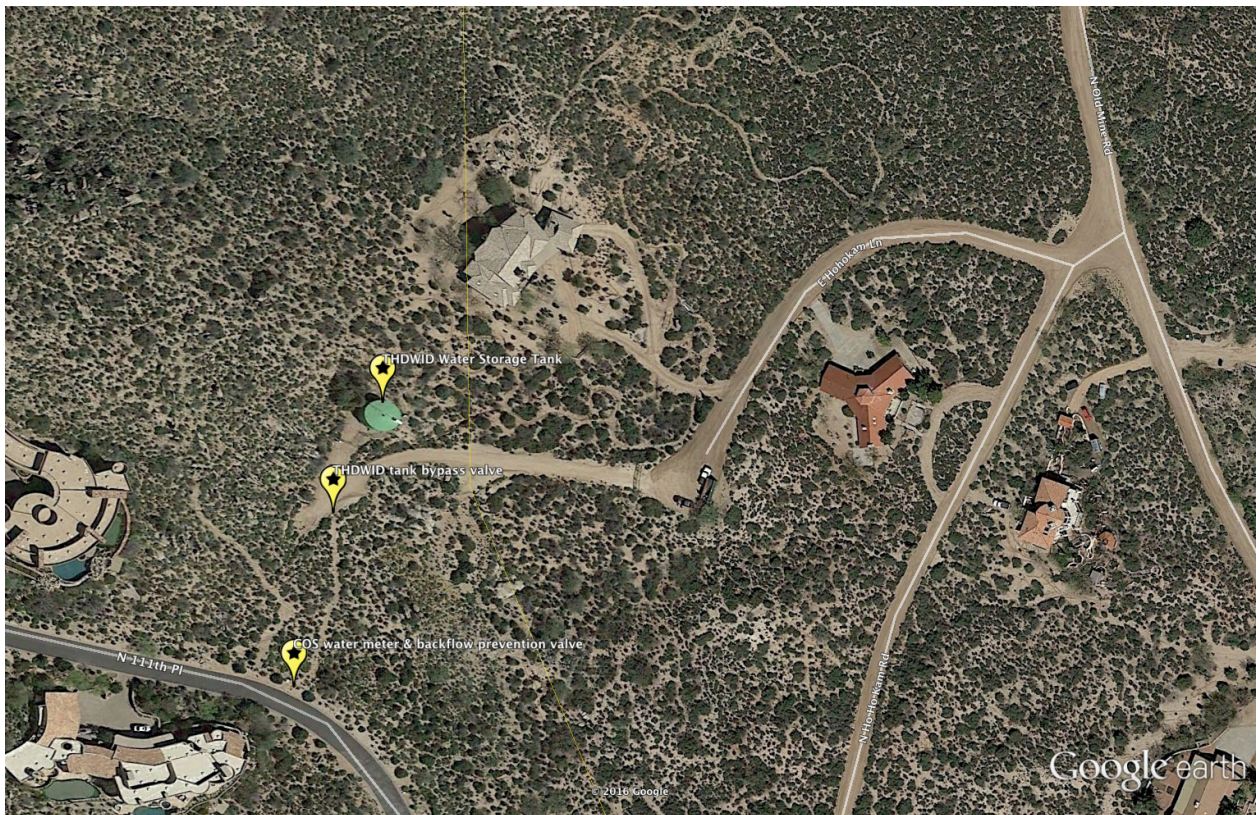
This appendix provides a general description of the Tonto Hills Domestic Water Improvement District (THDWID) drinking water supply system and the tank gaging system. More information on the history, organization, operation, water quality, rate structure, and water conservation for the THDWID can be found in the Frequently Asked Questions on the home webpage at www.TontoHillsWater.org.

WATER SYSTEM GENERAL DESCRIPTION

1. THDWID Steel Water Storage Tank

- a. Located high in the THDWID on a gated access road off of East Hohokam Lane (see **Figure 1**). Records are sparse, but it is believed the tank was originally installed about 1961, which is the date on the outlet pipe of the tank.

FIGURE 1. AERIAL MAP OF STORAGE TANK AREA



- b. Tank elevation is about 3,725 feet above mean sea level (msl), about 400 vertical feet above the lowest residential connection in the system. A column of water this tall produces 174 pounds per square inch (psi) of pressure at the bottom. Therefore, the distribution system functions well using only gravity. There are no pumps anywhere in the system, except for one or more booster pumps operated by residents located nearest to the tank where water system pressures are lower.
- c. Tank capacity up to the overflow level is about 48,000 gallons.
- d. The tank has a 2-inch diameter inflow pipe through a flanged, sealed, and bolted 20-inch diameter manhole on the east part of the tank roof. The inflow pipeline is equipped with a bypass and multiple valves, as well as other. A 6-inch diameter outflow pipe is located at the base of the tank on the south side and is fitted with a gate valve. To the left of this outflow pipe, there is a 28-inch diameter flanged, sealed, and bolted manhole to provide access for cleaning and maintaining the tank interior. An overflow pipe is located near the top of the north side of the tank, above a small water faucet and hose bib that supplies the tank site. A steel ladder for accessing the top of the tank is welded to the west side of the tank.
- e. The tank is coated on the inside with a special paint that meets standards for potable water systems. The outside is coated with a corrosion-resistant paint. These coatings, as well as the integrity of the steel and welds, are inspected at approximately 5-year intervals by a qualified testing firm contracted by THDWID. The tank was last inspected, repaired, and recoated on the inside in summer 2018.
- f. The tank site is secured by a 6-foot high chain-link fence with 3 strands of barbed wire at the top; the fence was installed in January 2015. The fence is equipped with a man-gate and a double-panel vehicle gate. Both gates are secured with padlocks, as is the steel access road gate at the driveway entrance on Hohokam Lane.
- g. The tank site is supplied with electricity from an Arizona Public Service switch box next to the double-panel vehicle gate. This box supplies 110-volt service to the tank lighting and instrumentation, as well as three electrical outlets located at the ladder, the tank top, and a receptacle at ground level on the east side of the tank.
- h. THDWID leases space inside the tank fence for a broadband microwave relay station owned and operated by Desert Inet. This installation uses the tank electrical service and provides broadband internet service to subscribers in Tonto Hills. Although THDWID pays the APS bill, it recovers electrical costs from Desert Inet. As of summer 2019, Desert Inet pays \$100/month to lease the space and \$60/month for APS.

2. City of Scottsdale (COS) Water Meter and Backflow Prevention Valve

- a. Located along the north side of North 111th Place in Desert Mountain, about 265 feet south southwest from the THDWID storage tank **(Figure 1)**.
- b. COS withdraws THDWID's Central Arizona Project (CAP) water allocation from the CAP canal, treats it, and delivers it to the COS water meter. At this point, the CAP

water is well mixed with groundwater and other sources of water in the COS distribution system.

- c. A booster pump is located at a COS pump station within Desert Mountain, at the intersection of 111th Place and 112th Place, to supply the pipeline to the meter at the entrance to the THDWID system.
- d. A backflow prevention valve is located downstream from the COS meter to prevent backflow of water from the THDWID system. This valve is inspected annually by a qualified tester contracted by THDWID. COS sends a letter to THDWID in June of each year requesting that the annual inspection be conducted, and it is generally completed the same month.

3. Distribution Pipelines

- a. Pipelines of 6-inch, 4-inch, and 2-inch diameter comprised chiefly of asbestos-cement pipe (ACP) or plastic pipe convey water from the storage tank throughout the THDWID. Maps showing the current location, type, and diameter of pipes, as well as valves, standpipes, water meters, and other connections, are maintained by the THDWID Superintendent.
- b. Only the 2-inch diameter pipe from the COS meter to the storage tank is pressurized by pumps. All other pipelines are gravity-fed from the storage tank.
- c. There are three main trunk pipelines that feed the lower part of the District: Old Mine Road; Manana Road; and Blue Wash Road.
- d. Computerized instrumentation for operation of the THDWID system is focused on flow rate through the 2-inch diameter inflow pipe from the COS meter to the storage tank, operation of an Automatic Control Valve (ACV) on this inflow pipe, and the water level inside the tank.

4. Storage Tank Bypass

- a. There is a bypass valve in a below ground valve box along the 2-inch pipeline between the COS meter and the storage tank.
- b. This valve allows diversion of water into temporary tanks when the storage tank must be bypassed for maintenance. When the bypass valve is used, water is diverted to a rented temporary tank located next to the bypass valve. Water flows from this temporary tank through a permanent buried PVC pipeline to a valve between the storage tank and Hohokam Lane. The outlet valve of the main storage tank is closed and the valve between the storage tank and Hohokam Lane is opened to provide water to the District through the bypass system.

5. Pressure Reducing Valves (PRVs)

- a. To prevent over pressure in the distribution system serving the lower areas of THDWID, three Pressure Reducing Valves (PRVs) were installed in the main trunk lines along Old Mine, Manana, and Blue Wash Roads in 2010. The PRVs are housed in large underground cement located in the County right-of-way that require confined space safety procedures.

6. Standpipes

- a. There are 16 riser pipes or “standpipes” distributed around the distribution system for use by fire departments and construction. Standpipes should only be used by authorized personnel.
- b. These standpipes are generally equipped with valved and capped 3-inch diameter tee fittings to provide larger capacity access to the distribution system water at strategic locations.
- c. The standpipes are not fire hydrants and only provide gravity fed water from the limited capacity storage tank. Signs warning users to not pump water from the standpipes are mounted on each one in order to prevent potential vacuum collapse of the buried pipelines. Anyone taking water from the standpipes should only rely on the pipeline pressure for flow.
- d. THDWID uses a portable meter to measure water use at the standpipes.

TANK INFLOW PIPE SYSTEM AND INSTRUMENTATION

A 2-inch diameter galvanized steel inflow pipe system supplies water under pressure from the COS meter to the THDWID storage tank. The storage tank inflow pipe system and instrumentation consist of the following components, in order from upstream to downstream:

1. Scottsdale Meter at Entrance to THDWID System

- a. The meter described in the previous section is owned by Scottsdale and is inside the large underground meter box. The box lid is generally not locked and can be easily removed. The meter is read monthly by Scottsdale and by the THDWID meter reader. It is important that our meter reader note the exact time when the Scottsdale meter is read so that we can compare it with our flowmeter data.
- b. Reading of the Scottsdale meter by Scottsdale and THDWID does not necessarily occur on the same date; therefore, the readings are likely to always be different.
- c. Our readings of this meter are compared with data from our monthly parcel meter readings to determine the differences.

2. Backflow Prevention Valve

- a. A backflow prevention valve is located above-ground, immediately downstream from the COS meter to prevent backflow of water from the THDWID system. This valve is inspected annually by a qualified tester contracted by THDWID. COS sends a letter to THDWID in June of each year requesting that the annual inspection be conducted, and it is generally completed the same month. The THDWID’s vendor provides a ***“Backflow Prevention Assembly Test Report”***, which is then submitted to:

City of Scottsdale Water Operations
9312 N. 94th Street, Scottsdale, AZ 85258
Office: 480-312-5650

We currently use the following vendor:

Procheck Inc.
PO Box 6765, Glendale, AZ 85312
Office: 602-978-5921
Cell: 602-527-9113

- b. Manual Flow Valves adjacent to Backflow Prevention Valve
 - i. A manual isolation valve is located on either side of the Backflow Prevention Valve. The one on the downstream side can be used to regulate or shut off flow to the storage tank. These valves are not equipped with handles, a portable handle or wrench is required to adjust the valves.
 - ii. Normal operating position for both of these manual valves is full open.
 - iii. Never adjust these valves unless you are authorized to do so and fully understand the operation of the THDWID water system.
- c. Pressure Gage Tap
 - i. It is important to understand the relation between Scottsdale system pressure on the storage tank inflow line and how it affects maximum flow rate into the tank. The higher the pressure, the higher the maximum flow and vice versa. The pressure can be measured using a pressure gage with a psi rating of at least 200 psi. Use of gages with lower ratings may result in damage to the gage if there are high pressures in the Scottsdale system.
 - ii. There is a pressure gage tap located upstream and adjacent to the manual valve on the upstream side of the Backflow Prevention Valve. The tap is a fitting that extends up vertically from the 2-inch pipeline and is capped with a male-threaded cap. The west side of the vertical fitting has a screw that can be adjusted with a flat-head screwdriver.
 - iii. To measure water pressure:
 - 1. Remove threaded cap at top of tap fitting.
 - 2. Screw in pressure gage to hand tight, then tighten slightly using a wrench.
 - 3. **Slowly** turn the screw on the west side of the tap fitting 90 degrees either direction to open flow to the pressure gage.
 - 4. Read gage.
 - 5. Reverse the procedure above to remove the pressure gage and close the tap.

3. Bypass Valve

- a. As described in the previous section, there is a bypass valve in a below ground valve box along the 2-inch pipeline between the COS meter and the storage tank. This valve allows diversion of water into temporary tanks when the storage tank must be bypassed for maintenance.
- b. Normal position for this valve is open, with the handle in line with the 2-inch diameter supply pipeline to the storage tank.

- c. When the bypass valve is used, water is diverted to a rented temporary tank located next to the bypass valve. Water flows from this temporary tank through a permanent buried PVC pipeline to a valve between the storage tank and Hohokam Lane. The outlet valve of the main storage tank is closed and the valve between the storage tank and Hohokam Lane is opened to provide water to the District through the bypass system.
- d. An alternative to using this bypass valve is to divert flow at the top of the storage tank using the bypass system there, as described in the following sections. The advantage of this alternate bypass is that it is elevated and may better accommodate some temporary storage tanks.
- e. ***IMPORTANT WARNING:*** Direct pressure from the Scottsdale inflow pipe should never be directly connected to the THDWID distribution system. A holding tank with atmospheric pressure should always be used between the Scottsdale distribution system and the THDWID distribution system. The Pressure Reducing Valves (PRVs) in the main trunk pipelines of the THDWID distribution system and the smaller PRVs installed by many of the homeowners are set for the lower pressures associated with the gravity-fed system. If pressurized water from the Scottsdale system is piped directly into the THDWID distribution system, the system may become over-pressured and may cause leaks in home plumbing and appliances as well as blowouts in some of the old small-diameter plastic fittings and piping in the THDWID system.

4. Storage Tank Pipe and Valve Assembly

- a. Water from the COS system enters the storage tank via a 2-inch diameter pipe manifold that is equipped with several valves to divert water as necessary. This manifold can also be used to bypass the tank, if the primary bypass system cannot be used.
- b. This manifold is equipped with a digital flowmeter that sends flow data to the datalogger.
- c. An Automatic Control Valve (ACV) on the inflow manifold opens and closes in response to signals from the datalogger.

AUTOMATIC CONTROL VALVE

A blue Automatic Control Valve (ACV) is mounted on the 2-inch diameter tank inflow pipe between the manhole and the most downstream valve on the inflow pipe manifold. This valve is opened and closed by a solenoid that responds to electrical signals from the datalogger, which is powered by the datalogger solar panel and battery. The solenoid itself requires the 110-volt APS electrical supply to open and close the valve. This valve is critical to effective automatic control of the District water system. If this valve is not functional, the water system must be controlled manually by turning valves on the tank roof and is labor intensive.

EXTERNAL TANK WATER LEVEL INDICATOR

The water level in the tank can be monitored manually using the external graduated level scale on the east side of the tank. However, this system operates using a float and cable pulley system that is subject to sticking. Even though this gage can be read using binoculars, when reading this gage, the reader must go up to the tank to pull on the cable and make sure it is moving freely and providing an accurate level.

COMPUTER SYSTEM AND SOFTWARE

1. Key Elements of the System

- a. Pressure transducer inside tank that measures depth to water.
- b. Digital flowmeter on inflow line to tank from City of Scottsdale water system.
- c. Automatic control valve that opens on demand.
- d. Datalogger that records data from the transducer and flowmeter and actuates the control valve.
- e. Radio transmitter that communicates with a dedicated computer in the community.
- f. AC electrical service to the tank site that powers the control valve.
- g. Solar panel that powers the datalogger and radio transmitter.
- h. Dedicated computer that downloads the data via radio, displays important operational parameters on a dashboard, and issues alarms to THDWID personnel via text and email when conditions fall outside normal operating limits.

2. Pressure Transducer

- a. A Campbell Scientific vibrating-wire pressure transducer is installed on the floor of the storage tank and provides direct measurements of the water pressure above it to a datalogger.

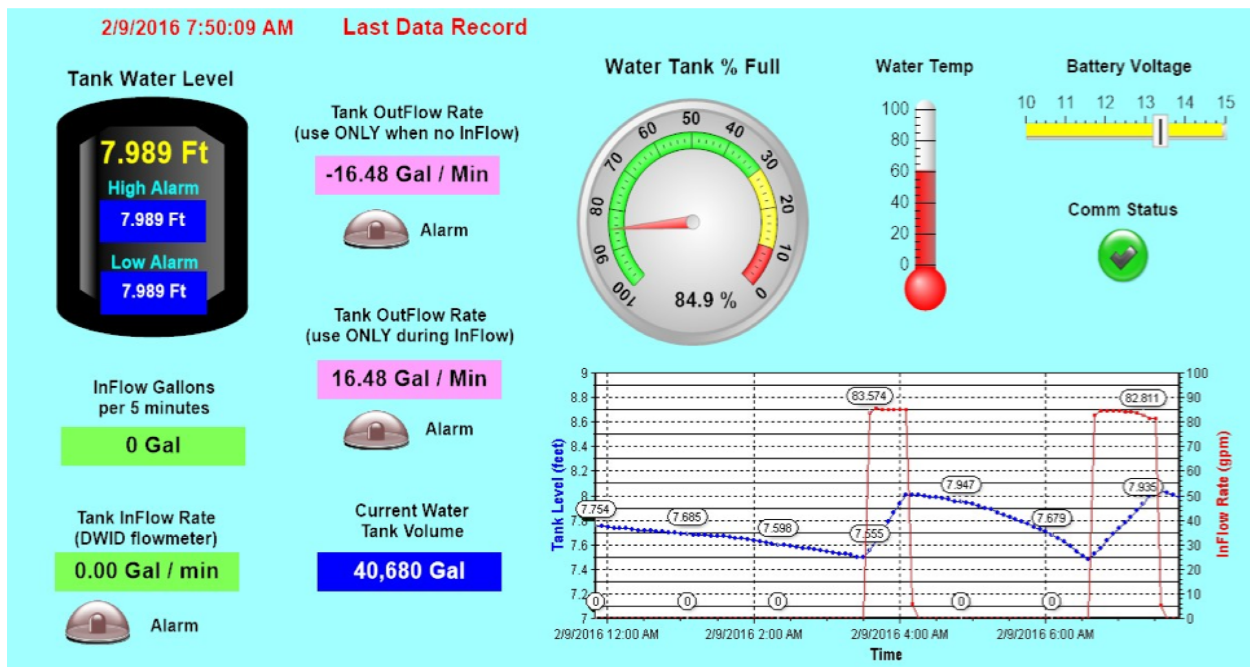
3. Datalogger

- a. A Campbell Scientific datalogger housed in a weatherproof cabinet on the east side of the tank is powered by a solar panel system to allow it to operate even when APS power is out.
- b. The datalogger records pressure measurements from the pressure transducer and converts them to water depth. The datalogger program uses changes in water depth to calculate inflow and outflow rates.
- c. The datalogger also records direct measurement of inflow from the digital flowmeter on the inlet pipe. These measurements are cumulated to provide total volumetric inflow over specified periods of time and can be compared to the City of Scottsdale meter readings.
- d. Datalogger recordings are transmitted every 5 minutes to a dedicated computer via a directional radio transmitter mounted on top of the tank.

4. Dedicated Computer

- a. A laptop computer dedicated to downloading and monitoring signals from the datalogger system is located typically at the Superintendent's house. This location is changed as necessary to provide for continuous response to alarms issued by the system.
- b. Data are downloaded from the datalogger at 5-minute intervals and are shown on the program dashboard. Figure 2 shows the data as they appear on the dashboard screen.
- c. Alarms are issued when water levels drop at rates exceeding program alert levels and when certain equipment functions are not responding normally. Emails and text messages are sent out to those monitoring the system and procedures are then followed to identify the source of the problem.

FIGURE 2. DASHBOARD FOR TANK GAGING COMPUTER PROGRAM



APPENDIX M

BACKFLOW PREVENTION ASSEMBLIES

BACKFLOW PREVENTION ASSEMBLIES; APPROVED LIST

A. The following are the recognized types of backflow prevention assemblies which the THDWID requires:

1. *Air gap*: The unobstructed vertical distance through free atmosphere between the lowest point of a water supply outlet, pipe or faucet supplying potable water to a tank, plumbing fixture or other device and the flood level rim of the tank, plumbing fixture or other device. An approved air gap shall be at least twice the diameter of the supply pipe or faucet and in no case less than one (1) inch.
2. *Reduced pressure principle assembling (hereinafter "RP")*: A backflow prevention assembly containing two independently acting approved check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves, and at the same time below the first check valve. The assembly shall include properly located test cocks and tightly closing shut-off valves at each end of the assembly.
3. *Double check valve assembly (hereinafter "DC")*: A backflow prevention assembly composed of two independently acting, approved check valves, including tightly closing shut-off valves located at each end of the assembly and fitted with properly located test cocks.
4. *Pressure vacuum breaker assembly (hereinafter "PVB")*: A backflow prevention assembly containing an independently operating, loaded check valve and an independently operating, loaded air inlet valve located on the discharge side of the check valve. The assembly shall be equipped with properly located test cocks and tightly closing shut-off valves located at each end of the assembly.

B. A use may use a backflow prevention assembly if it has received the approval of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California, the American Society of Sanitary Engineering or other recognized testing agency approved by the department, and its use is approved by the department. Approved assemblies must have a local manufacturer's parts and service center.

(Ord. No. 2346, § 1, 5-20-91; Ord. No. 2864, 2-20-96; Ord. No. 3117, § 1, 2-17-98)

P2902.3 Backflow protection. A means of protection against backflow shall be provided in accordance with Sections P2902.3.1 through P2902.3.6. Backflow prevention applications shall conform to Table P2902.3, except as specifically stated in Sections P2902.4 through P2902.5.5.

TABLE P2902.3 APPLICATION FOR BACKFLOW PREVENTERS

DEVICE	DEGREE OF HAZARD^a	APPLICATION^b	APPLICABLE STANDARDS
Air gap	High or low hazard	Backsiphonage or backpressure	ASME A112.1.2
Air gap fittings for use with plumbing fixtures, appliances and appurtenances	High or low hazard	Backsiphonage or backpressure	ASME A112.1.3
Antisiphon-type fill valves for gravity water closet flush tanks	High hazard	Backsiphonage only	ASSE 1002, CSA B125.3
Backflow preventer with intermediate atmospheric vents	Low hazard	Backpressure or backsiphonage Sizes $\frac{1}{4}$ "- $\frac{3}{4}$ "	ASSE 1012, CSA B64.3
Double check backflow prevention assembly and double check fire protection backflow prevention assembly	Low hazard	Backpressure or backsiphonage Sizes $\frac{3}{8}$ "- 16"	ASSE 1015, AWWA C510, CSA B64.5, CSA B64.5.1
Double check detector fire protection backflow prevention assemblies	Low hazard	Backpressure or backsiphonage (Fire sprinkler systems) Sizes 2"- 16"	ASSE 1048
Dual-check-valve-type backflow preventer	Low hazard	Backpressure or backsiphonage Sizes $\frac{1}{4}$ "- 1"	ASSE 1024, CSA B64.6
Hose connection backflow preventer	High or low hazard	Low head backpressure, rated working pressure backpressure or backsiphonage Sizes $\frac{1}{2}$ "- 1"	ASSE 1052, CSA B64.2.1.1
Hose-connection vacuum breaker	High or low hazard	Low head backpressure or backsiphonage Sizes $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1"	ASSE 1011, CSA B64.2, CSA B64.2.1
Laboratory faucet backflow preventer	High or low hazard	Low head backpressure and backsiphonage	ASSE 1035, CSA B64.7
Pipe-applied atmospheric-type vacuum breaker	High or low hazard	Backsiphonage only Sizes $\frac{1}{4}$ "- 4"	ASSE 1001, CSA B64.1.1
Pressure vacuum breaker assembly	High or low hazard	Backsiphonage only Sizes $\frac{1}{2}$ "- 2"	ASSE 1020, CSA B64.1.2
Reduced pressure detector fire protection backflow prevention assemblies	High or low hazard	Backsiphonage or backpressure (Fire sprinkler systems)	ASSE 1047
Reduced pressure principle backflow preventer and reduced pressure principle fire protection backflow preventer	High or low hazard	Backpressure or backsiphonage Sizes $\frac{3}{8}$ "- 16"	ASSE 1013, AWWA C511, CSA B64.4, CSA B64.4.1
Spillproof vacuum breaker	High or low hazard	Backsiphonage only Sizes $\frac{1}{4}$ "- 2"	ASSE 1056
Vacuum breaker wall hydrants, frost-	High or low hazard	Low head backpressure or backsiphonage	ASSE 1019, CSA B64.2.2

DEVICE	DEGREE OF HAZARD ^a	APPLICATION ^b	APPLICABLE STANDARDS
resistant, automatic draining type		Sizes $\frac{3}{4}$ "- 1"	

For SI: 1 inch = 25.4 mm.

a. Low hazard-See Pollution ([Section R202](#)). High hazard-See Contamination ([Section R202](#)).

b. See Backpressure ([Section R202](#)). See Backpressure, Low Head ([Section R202](#)). See Backsiphonage ([Section R202](#)).

[Top](#) [Previous Section](#) [Next Section](#) To view the next subsection please select the Next Section option.

effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-213 repealed; new Section renumbered from R18-4-119 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214. Hauled Water

- A. All hauled water for delivery to a public water system shall be obtained from a source that is approved pursuant to 18 A.A.C. 5, Article 5, or a regulated public water system.
- B. Materials or products that come into contact with the water shall comply with R18-4-213(B).
- C. Roof hatches shall be fitted with a watertight cover.
- D. A bottom drain valve or other provisions to allow complete drainage and cleaning of a water transport container shall be provided.
- E. Hoses that are used to deliver drinking water shall be equipped with a cap and shall remain capped when not in use.
- F. A water hauler shall, at all times, maintain a residual free chlorine level of 0.2 mg/l to 1.0 mg/l in the water that is hauled in a water transport container. A chlorine disinfectant shall be added at the time water is loaded into the container. The residual free chlorine level shall be measured each time water is off-loaded from the container. The water hauler shall maintain a log of all on-loading, chlorine disinfectant additions and residual-free chlorine measurements. Such records shall be maintained for at least three years and made available to the Department for review upon request.
- G. A water transport container shall be for hauling drinking water only. The container shall be plainly and conspicuously labeled "For Drinking Water Use Only."

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-214 repealed; new Section renumbered from R18-4-125 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214.01. Repealed

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-214.01 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214.02. Repealed

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective January 1, 2004 (Supp. 02-3). R18-4-214.02 including Table 1 and Table 2 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-215. Backflow Prevention

- A. A public water system shall protect its system from contamination caused by backflow through unprotected cross-connections by requiring the installation and periodic testing of backflow-prevention assemblies. Required backflow-prevention assemblies shall be installed as close as practicable to the service connection.
- B. A public water system shall ensure that a backflow-prevention assembly is installed whenever any of the following occur:
 1. A substance harmful to human health is handled in a manner that could permit its entry into the public water

system. These substances include chemicals, chemical or biological process waters, water from public water supplies that has deteriorated in sanitary quality, and water that has entered a fire sprinkler system. A Class 1 or Class 2 fire sprinkler system is exempt from the requirements of this Section;

2. A source of water supply exists on the user's premises that is not accepted as an additional source by the public water system or is not approved by the Department;
 3. An unprotected cross-connection exists or a cross-connection problem has previously occurred within a user's premises; or
 4. There is a significant possibility that a cross-connection problem will occur and entry to the premises is restricted to the extent that cross-connection inspections cannot be made with sufficient frequency or on sufficiently short notice to ensure that unprotected cross-connections do not exist.
- C. Unless a cross-connection problem is specifically identified, or as otherwise provided in this Section, the requirements of this Section shall not apply to single-family residences used solely for residential purposes.
 - D. A backflow-prevention assembly required by this Section shall comply with the following:
 1. If equipped with test cocks, it shall have been issued a certificate of approval by:
 - a. The University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC-FCCCHR), or
 - b. A third-party certifying entity that is unrelated to the product's manufacturer or vendor, and is approved by the Department.
 2. If not equipped with test cocks, it shall be approved by a third-party certifying entity that is unrelated to the product's manufacturer or vendor and is approved by the Department.
 - E. The minimum level of backflow protection that is provided to protect a public water system shall be the level recommended in Section 7.2 of the Manual of Cross-Connection Control, Ninth Edition, USC-FCCCHR, KAP-200 University Park MC-2531, Los Angeles, CA, 90089-2531, December 1993, (and no future editions or amendments), incorporated by reference and on file with the Department. The types of backflow prevention that may be required, listed in decreasing order according to the level of protection they provide, include: an air-gap separation (AG), a reduced pressure principle backflow prevention (RP) assembly, a pressure vacuum breaker (PVB) assembly, and a double check valve (DC) assembly. Nothing contained in this Section shall prevent a public water system from requiring the use of a higher level of protection than the level required by this subsection.
 1. A public water system may make installation of a required backflow-prevention assembly a condition of service. A user's failure to comply with this requirement shall be sufficient cause for the public water system to terminate water service.
 2. Specific installation requirements for backflow prevention include the following:
 - a. Any backflow prevention required by this Section shall be installed in accordance with the manufacturer's specifications.
 - b. For an AG installation, all piping between the user's connection and the receiving tank shall be entirely visible unless otherwise approved in writing by the public water system.

- c. An RP assembly shall not be installed in a meter box, pit, or vault unless adequate drainage is provided.
 - d. A PVB assembly may be installed for use on a landscape water irrigation system if the irrigation system conforms to all of the criteria listed below. An RP assembly is required whenever any of the criteria are not met.
 - i. The water use beyond the assembly is for irrigation purposes only;
 - ii. The PVB is installed in accordance with the manufacturer's specifications;
 - iii. The irrigation system is designed and constructed to be incapable of inducing backpressure; and
 - iv. The injection of chemical pesticides and fertilizers, chemigation, is not used or provided in the irrigation system.
- F.** Each backflow-prevention assembly required by this Section shall be tested at least annually, or more frequently if directed by the public water system or the Department. Each assembly shall also be tested after installation, relocation, or repair. An assembly shall not be placed in service unless it has been tested and is functioning as designed. The following provisions shall apply to the testing of backflow-prevention assemblies:
1. Testing shall be in accordance with procedures described in Section 9 of the Manual of Cross-Connection Control. The public water system shall notify the water user when testing of backflow-prevention assemblies is needed. The notice shall specify the date by which the testing must be completed and the results forwarded to the public water system.
 2. Testing shall be performed by a person who is currently certified as a "general" tester by the California-Nevada Section of the American Water Works Association (CA-NV Section, AWWA), the Arizona State Environmental Technical Training (ASETT) Center, or other certifying authority approved by the Department.
 3. When a backflow-prevention assembly is tested and found to be defective, it shall be repaired or replaced in accordance with the provisions of this Section.
- G.** A public water system shall maintain records of backflow-prevention assembly installations and tests performed on backflow-prevention assemblies in its service area. Records shall be retained by the public water system for at least three years and shall be made available for review by the Department upon request. These records shall include an inventory of backflow-prevention assemblies required by this Section and, for each assembly, all of the following information:
1. Assembly identification number and description,
 2. Location,
 3. Date of tests,
 4. Description of repairs and recommendations for repairs made by the tester, and
 5. The tester's name and certificate number.
- H.** A public water system shall submit a written cross-connection incident report to the Department and the local health authority within five business days after a cross-connection problem occurs that results in contamination of the public water system. The report shall address all of the following:
1. Date and time of discovery of the unprotected cross-connection,
 2. Nature of the cross-connection problem,
 3. Affected area,
 4. Cause of the cross-connection problem,
 5. Public health impact,
 6. Date and text of any public health advisory issued,
 7. Each corrective action taken, and
 8. Date of completion of each corrective action.
- I.** An individual with direct responsibility for implementing a backflow prevention program for a water system serving more than 50,000 persons, or an individual with direct responsibility for implementing a backflow prevention program for a for a water system serving 50,000 or fewer persons if the Department has determined that such a need exists, shall be licensed as a "cross-connection control program specialist" by the CA-NV Section, AWWA, the ASETT Center, or another certifying authority approved by the Department.

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-215 repealed; new Section renumbered from R18-4-115 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-216. Vending Machines

An owner of a water vending machine shall be responsible for the proper operation of each water vending machine. The owner shall do all of the following:

1. Clean and maintain each water vending machine according to the manufacturer's recommendations;
2. Retain maintenance and cleaning records for one year;
3. Have analyses performed at least once every six months for total coliform bacteria. Results of such analyses shall be retained for one year. If a sample is positive for total coliform, the water vending machine shall be removed from service, and all components shall be cleaned, replaced, or serviced. The water vending machine shall not be placed back into service until another total coliform bacteria analysis is performed and the result is negative; and
4. Maintain in operable condition all ultraviolet, ozone, or other disinfection components and automatic disabling capabilities built into the vending machine for use in the event of a disinfection system malfunction.

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-216 repealed; new Section renumbered from R18-4-123 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-217. Use of Blending to Achieve Compliance with Maximum Contaminant Levels

- A.** A public water system may use blending to achieve compliance with a MCL if all of the following requirements are met:
1. The public water system has obtained the Department's written approval for a blending plan that includes the following elements:
 - a. Detailed drawings and schematics that show flow, concentrations, and controls;
 - b. Proposed automatic or electronic devices that will be incorporated to ensure that the blend remains in the desired range or shuts off the offending source or triggers an alarm when the blend falls out of the desired range;

SCOTTSDALE CODE OF ORDINANCES (as of 4/25/2016)

Sec. 49-61. - Backflow prevention assemblies; approved list.

- (a) The following are the recognized types of backflow prevention assemblies which the water resources division may require under section 49-59 or section 49-62.
- (1) Air gap: The unobstructed vertical distance through free atmosphere between the lowest point of a water supply outlet, pipe or faucet supplying potable water to a tank, plumbing fixture or other device and the flood level rim of the tank, plumbing fixture or other device. An approved air gap shall be at least twice the diameter of the supply pipe or faucet and in no case less than one (1) inch.
 - (2) Reduced pressure principle assembly (hereinafter "RP"): A backflow prevention assembly containing two independently acting approved check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves, and at the same time below the first check valve. The assembly shall include properly located test cocks and tightly closing shut-off valves at each end of the assembly.
 - (3) Double check valve assembly (hereinafter "DC"): A backflow prevention assembly composed of two independently acting, approved check valves, including tightly closing shut-off valves located at each end of the assembly and fitted with properly located test cocks.
 - (4) Pressure vacuum breaker assembly (hereinafter "PVB"): A backflow prevention assembly containing an independently operating, loaded check valve and an independently operating, loaded air inlet valve located on the discharge side of the check valve. The assembly shall be equipped with properly located test cocks and tightly closing shut-off valves located at each end of the assembly.
- (b) A user may use a backflow prevention assembly if it has received the approval of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California, the American Society of Sanitary Engineering or other recognized testing agency approved by the water resources division, and its use is approved by the division. Approved assemblies must have a local manufacturer's parts and service center.

(Ord. No. 2346, § 1, 5-20-91; Ord. No. 2864, 2-20-96; Ord. No. 3117, § 1, 2-17-98; Ord. No. 4077, § 1(Res. No. 9374, Exh. A, § 1), 5-14-13)

Editor's note— Ord. No. 4077, § 3, adopted May 14, 2013, provided for an effective date of July 1, 2013.

Sec. 49-62. - Backflow prevention assemblies required.

- (a) When any of the following items or activities are present or conducted on premises served by the public potable water supply system, a potential hazard to the public

potable water supply system shall be presumed and a backflow prevention assembly, of the type specified for that item or activity herein, must be in place at each service connection for that premises.

- (1) Aircraft and missile plants: RP.
- (2) Animal clinics and animal grooming shops: RP.
- (3) Any premises where a cross-connection is maintained: RP.
- (4) Automotive repair with steam cleaner, acid cleaning equipment, or solvent facilities: RP.
- (5) Auxiliary water systems: RP.
- (6) Beauty shops: RP.
- (7) Bottling plants, beverage or chemical: RP.
- (8) Breweries: RP.
- (9) Buildings greater than three (3) stories or greater than thirty-four (34) feet in height from curb level: RP.
- (10) Buildings with house pumps and/or potable water storage tank: RP.
- (11) Buildings with landscape fountains, ponds, or baptismal tanks: RP.
- (12) Buildings with sewage ejectors: RP.
- (13) Buildings used for commercial mini-warehouses or industrial uses where one (1) service connection supplies more than one (1) tenant or occupant of the building: RP.
- (14) Canneries, packing houses, and reduction plants: RP.
- (15) Car wash facilities: RP.
- (16) Cooling towers, boilers, chillers and other heating and cooling systems utilizing potable water: RP.
- (17) Chemical plants: RP.
- (18) Chemically treated potable or nonpotable water systems: RP.
- (19) Civil works (government-owned or- operated facilities not open for inspection by the water resources division): RP.
- (20) Commercial laundries: RP.
- (21) Dairies and cold storage plants: RP.
- (22) Dye works: RP.
- (23) Film processing laboratories, facilities, or equipment: RP.
- (24) Fire systems, as classified by the American Water Works Association (AWWA) Manual M14, 2nd edition:
 - a. In accordance with section 49-64(a), Class 1, Class 2: DC.
 - b. Class 3, all systems: DC

- c. Classes 4, 5 and 6, all systems: RP.
- (25) Fire systems. Where backflow protection is required on the industrial/domestic service connection that is located on the same premises, both service connections will have adequate backflow protection for the highest degree of hazard affecting either system.
- (26) Food processing plants: RP.
- (27) High schools and colleges: RP.
- (28) Holding tank disposal stations: RP.
- (29) Hospitals and mortuaries: RP.
- (30) Hydrant meters connecting to the public potable water supply system to be used for irrigation or construction water: RP or air gap.
- (31) Irrigation system:
 - a. Premises where nonpotable water is used for irrigation: RP.
 - b. Premises using potable water with nonpotable water piping: RP.
 - c. Premises having a system served by more than one (1) service connection (looped system): RP.
 - d. Landscape irrigation systems: PVB or RP.
- (32) Laboratories using toxic materials: RP.
- (33) Manufacturing, processing, and fabricating plants using toxic or nontoxic materials: RP.
- (34) Master metered apartments, condos and townhouses: RP.
- (35) Medical and dental buildings, sanitariums, rest and convalescent homes engaged in the diagnosis, care or treatment of human illness: RP.
- (36) Mobile home parks served by master meter: RP.
- (37) Motion picture studios: RP.
- (38) Multiple services-interconnected: RP.
- (39) Oil and gas production facilities: RP.
- (40) Paper and paper product production facilities: RP.
- (41) Plating plants: RP.
- (42) Portable insecticide and herbicide spray tanks: RP or air gap.
- (43) Post mix drink machines: RP.
- (44) Power plants: RP.
- (45) Public swimming pools with self-levelers or automatic fillers: PVB or RP.
- (46) Radioactive materials processing facilities: RP.
- (47) Restaurants: RP.
- (48) Restricted, classified, or other closed facilities: RP.

- (49) Rubber plants: RP.
 - (50) Sand and gravel plants: RP.
 - (51) Sewage and storm drainage facilities: RP.
 - (52) Shopping centers served by master meters: RP.
 - (53) Waterfront facilities, piers, docks, dockside facilities and boat marinas: RP.
 - (54) Water trucks, water tanks or hydraulic sewer cleaning equipment: RP or air gap.
- (b) When two (2) or more of the items or activities listed above are present or conducted on the same premises and served by the same service connection, the most restrictive backflow preventer required for any of the items or activities present or conducted on the premises shall be required to be utilized or installed at the service connection. The order of most restrictive to least restrictive backflow preventers shall be as follows:
- (1) Air gap (most restrictive);
 - (2) Reduced pressure principle assembly (RP);
 - (3) Double check valve assembly (DC);
 - (4) Pressure vacuum breaker assembly (PVB) (least restrictive).

(Ord. No. 2346, § 1, 5-20-91; Ord. No. 2864, 2-20-96; Ord. No. 3117, § 2, 2-17-98; Ord. No. 4077, § 1(Res. No. 9374, Exh. A, § 1), 5-14-13)

Editor's note— Ord. No. 4077, § 3, adopted May 14, 2013, provided for an effective date of July 1, 2013.

Sec. 49-63. - Backflow assembly installation—Requirements; location.

- (a) Backflow prevention assemblies shall be installed by the user, at the user's expense and in compliance with the standards and specifications adopted by the water resources division, at the service connection. The assembly shall have a diameter at least equal to the diameter of the service connection.
- (b) The backflow prevention assembly shall be installed in an accessible location as close as possible to the service connection with proper clearances above the ground in accordance with the current set of standard details approved by the water resources division for backflow prevention assemblies.
- (c) When a user requires a continuous water supply, two (2) or more backflow prevention assemblies shall be installed parallel to one another at the service connection to allow a continuous water supply during testing of the backflow prevention assemblies. When backflow prevention assemblies are installed parallel to one another, the sum of the cross-sectional area of the assemblies shall be at least equal to the cross-sectional area of the service connection.

(Ord. No. 2346, § 1, 5-20-91; Ord. No. 2864, 2-20-96; Ord. No. 4077, § 1(Res. No. 9374, Exh. A, § 1), 5-14-13)

Editor's note— Ord. No. 4077, § 3, adopted May 14, 2013, provided for an effective date of July 1, 2013.

APPENDIX N

CONFINED SPACE PROGRAM

CONFINED SPACE PROGRAM

TABLE OF CONTENTS

INTRODUCTION

PURPOSE

DEFINITIONS

GENERAL REQUIREMENTS AND PROCEDURES

PROCEDURES FOR EVALUATING THDWID CONFINED SPACES

PROCEDURES FOR THDWID NON-PERMIT CONFINED SPACES

PROCEDURES FOR THDWID PERMIT CONFINED SPACES

ALTERNATIVE PROCEDURES

IDENTIFICATION AND CLASSIFICATION OF CONFINED SPACES HAZARDS

TRAINING

EQUIPMENT INSPECTION

Appendix A

CONFINED SPACE ASSESSMENT, CLASSIFICATION AND ENTRY PERMIT

WORKSHEET

I. INTRODUCTION

This program document establishes policies and procedures for work in areas that are potentially considered “Confined Spaces”. This is the official confined space program of the Tonto Hills Domestic Water Improvement District. It shall be the policy of the THDWID to reduce the need for confined space entry. When confined space entry is necessary, all provisions of this document shall be followed.

II. PURPOSE

The purpose of this program is to identify and evaluate all work areas that are potentially considered “Confined Spaces”. This document defines the confined space program of the Tonto Hills Domestic Water Improvement District. It contains the policies and procedures required to identify and manage confined spaces and maintain regulatory compliance. Implementation of the provisions within this program is the responsibility of all who work in and around designated confined spaces. This program also covers entries made by contractors or utility workers who are not employees.

III. DEFINITIONS

A confined space is defined as a space that is: “large enough so that an employee can bodily enter and perform work, has limited or restricted means for entry or exit and is not designed for continuous occupancy.” Confined spaces are further defined into two categories: A.) Permit-Required Confined Space, B.) Non-Permit-Required Confined Space.

A. Permit-Required Confined Space (PRCS): is defined as a confined space that has one or more of the following characteristics:

- Contains, or has the potential to contain, a hazardous atmosphere (example: sewer gas, welding fumes, inadequate oxygen, organic solvent vapors, carbon monoxide from vehicle exhaust, etc.); or
- Contains a material that has the potential for engulfing an entrant (example: unshored soil during excavation work); or
- Contains any other recognized serious safety or health hazard (example: high temperature, inadequate lighting)

B. Non-Permit Required Confined Space: is a space defined as a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm. Examples include: vented vaults, motor control cabinets, and dropped ceilings. Although they are "confined spaces", these spaces have either natural or permanent mechanical ventilation to prevent the accumulation of a hazardous atmosphere, and they do not present engulfment or other serious hazards.

C. Entry: Entry into a confined space occurs as soon as any part of the entrant's body breaks the plane of an opening into the space.

D. Entry Permit: The written permit defines the conditions under which the permit space may be entered.

E. Entry Supervisor: Means the person (such as employer, foreman, or crew chief) responsible to determine if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

NOTE: An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this section for each role he or she fills. Also, the duties of the entry supervisor may be passed from one individual to another during the course of the entry operation.

F. Hazardous Atmosphere: Means an atmosphere which exposes employees to a risk of death, incapacitation, injury or acute illness from one or more of the following causes:

- A flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL)
- An atmospheric oxygen concentration below 19.5% or above 23.5%
- A combustible dust environment
- An atmospheric concentration of any substance for which an employee exposure would exceed the permissible exposure limit (PEL)
- Any atmospheric condition recognized as immediately dangerous to life or health

G. Immediately dangerous to life or health: Means any condition which poses an immediate threat of loss of life; or may result in irreversible or immediate-severe health effects or other conditions which could impair escape from the permit space.

H. Permissible Exposure Limits (PEL): Means an airborne chemical exposure limit established by OSHA which can not be exceeded without proper respiratory protection and the implementation of feasible engineering controls.

IV. GENERAL REQUIREMENTS AND PROCEDURES:

An assessment of all THDWID work areas shall be evaluated as possibly qualifying as confined spaces and therefore require application of the THDWID confined space program. When a possible confined space area has been identified, a CONFINED SPACE - ASSESSMENT WORKSHEET shall be completed and kept for program records. If the area is identified as a confined space:

- The area shall be secured by an appropriate secure (locks or other methods) barrier. Identifying signage shall be maintained until area is deemed not a confined space. The signage shall stipulate:

- That THDWID has evaluated this site and as a confined space, no entry is permitted without THDWID re-evaluation and completion of THDWID's confined space permit.

Copies of all permits issued shall be kept in program records.

The designated THDWID Supervisor shall:

- Identify his/her personnel who will enter confined spaces.
- Verify that training on confined space hazards and entry procedures are current.
- Identify and report work areas that have the potential to be confined spaces. A list of spaces shall be maintained.
- Classify confined spaces as either "permit required" or "non-permit required"
- Prevent unauthorized entry into spaces.
- Provide instruction to personnel on the proper use of equipment required for confined space entry.
- Maintain equipment that is used to enter confined spaces
- Conduct annual work area audits to determine compliance with confined space entry procedures.
- Maintain records of equipment maintenance and employee training.
- Conduct pre-entry briefing to inform entrants of the possible hazards that may be encountered in a confined space.

The designated employees who enter confined spaces shall:

- Obtain the required training before entering a confined space.
- Follow the confined space entry procedures and any additional instructions given by their supervisor.
- Understand emergency procedures for confined space entry.
- Not enter a confined space that is suspected of having a hazardous atmosphere, even to rescue a fellow employee.

The designated contractors who enter confined spaces shall:

- Provide THDWID with their written company confined space policy and procedures including training documentation.
- Coordinate entry operations with the THDWID Superintendent

- Not allow their employees or subcontractors to enter a confined space without having received training and instruction in their individual duties.
- Obtain any available information regarding hazards or necessary entry procedures from the Superintendent. Coordinate entry operations with THDWID Superintendent and Supervisor when both DWID and contractor personnel will be working in or near confined spaces.
- Coordinate with the THDWID Superintendent and Supervisor when both DWID and contractor personnel will be working in or near the confined space.

V. PROCEDURES FOR EVALUATING THDWID CONFINED SPACES

Permit-Required Space are spaces with an atmosphere which exposes employees to a risk of death, incapacitation, injury or acute illness from one or more of the following causes: flammable or combustible gases, oxygen deficient or enriched atmosphere, toxic atmosphere, engulfment, and other serious physical hazards. Any welding or hot work being done in a confined space requires both a Confined Space Permit and Hot Work Permit.

Non-Permit confined space are spaces where there is an extremely low likelihood that an IDLH (immediately dangerous to life and health) or engulfment hazard could be present, and where all other serious hazards have been controlled. If conditions in the space change so that a hazardous atmosphere could develop or other serious safety and health hazards exist then the space must be reclassified as a Permit-Required confined space.

VI. PROCEDURES FOR THDWID NON-PERMIT CONFINED SPACES

It is critical to note that some non-permit confined space can still be very hazardous and additional controls are needed when working in the space. A Non-permit required confined space is a confined space that does not contain any physical or atmospheric hazards; nor is there a potential for these hazards to develop. Entry into confined spaces that do not require a permit should still be made with caution. The THDWID shall require execution of a Confined Space Assessment, Classification and Entry Permit Worksheet for all entry into a non-permitted confined space and shall be kept for program records.

The THDWID shall reasonably ensure that all employees and authorized contractors desiring to enter a non-permit confined space shall:

- a) Notify the THDWID Superintendent that an entry will take place.
- b) The THDWID Superintendent (or designate) shall act as THDWID supervisor for all activities within confined spaces.
- c) Determine if there has been any changes in the use or configuration of the space that will change its classification.
- d) Determine if any activities in the area could cause a hazardous atmosphere to build up in the space.
- e) Do not perform any activities in the space that could cause a buildup of a hazardous atmosphere, (i.e. welding, painting, or use of chemicals).
- f) An attendant is always required and must never leave the entrant alone while in the confined space. Never work alone.
- g) If hazards are detected, the entrant shall immediately leave the space and the entry shall be re-evaluated.

- h) All contractors shall follow additional policies and procedures as directed by their company confined space policies and procedures.
- i) All employees participating in a confined space entry shall be assigned one of the following specific responsibilities; Entrant, Attendant, Entry Supervisor (may also be an entrant).
- j) In case of an emergency, contact: 911 via radio and declare an emergency and instruct the Service Center and THVFD Phone – 480-437-9191.

VII. PROCEDURES FOR THDWID PERMIT CONFINED SPACES

There shall be no Permit Confined Space entry by THDWID personnel. If entry into a Permit Confined Space is necessary, it shall be performed by a qualified contractor utilizing THDWID GENERAL REQUIREMENTS AND PROCEDURE and the qualified contractors THDWID approved Permitted Confined Space Entry Program.

VIII. ALTERNATIVE PROCEDURES

Hazardous substances that are produced by activities in the general area of a confined space can migrate to, and accumulate in the space, creating an unseen hazard to an unsuspecting entrant. The potential for a hazardous atmosphere to develop requires the space to be classified as a PRCs. A permit required spaces that can use Alternative Procedures are allowed if the Person Authorizing the Permit can show the following:

- a) The only hazard posed by the permit space is a potential or actual hazardous atmosphere and that continuous force air ventilation alone is sufficient to maintain that permit space safe for entry. This also assures that all physical hazards such as mechanical equipment can be safely locked-out from outside the space prior to entry.
- b) Person authorizing the permit has air monitoring data to show that the air quality is safe and is maintained during the work in the space. A written record of the testing is maintained.
- c) Classify confined spaces as either "permit required" or "non-permit required".
- d) Before the employee enters the space, the internal atmosphere shall be tested for potential hazards. The person authorizing the permit shall determine the type of direct reading testing, but at a minimum, it shall include oxygen deficiency and flammable/combustible gases. Testing shall be done periodically while the employee(s) is/are in the space.
- e) Continuous forced air ventilation shall be used. The air must be from a clean source.

If a hazardous atmosphere is detected then the entrant shall immediately leave the space and entry would only be made with an entry permit, if changes in the space can not render it fully safe.

IX. IDENTIFICATION AND CLASSIFICATION OF CONFINED SPACES HAZARDS

Based on OSHA classification terms and assessment procedures for confined spaces, the following listing shows the general type of confined spaces found in the THDWID facilities operations.

1. Water storage tank

2. Pressure Reducing Valve vaults along Old Mine Road, Manana Road, and Blue Wash Road
3. Any deep trenches or holes required to be excavated for pipeline repairs

Each supervisor shall perform a workplace risk assessment to identify confined spaces, the hazards in or around the spaces, and the potential for hazards to develop in or around the spaces. Each supervisor shall evaluate the hazards of a confined space before allowing employees to enter. Identify any of the following:

Atmospheric Hazards	Physical Hazards		
Asphyxiating Flammable Toxic	Moving machinery Engulfment Hazardous material	Falls Electrocution Noise	Burns Heat stress Any other hazard

X. TRAINING

Before participating as a member of an entry team, each employee shall be given confined space training as well as instruction in the specific duties to be conducted. Detailed confined space training and instruction records are kept with program documents for agency inspection as required.

XI. EQUIPMENT INSPECTION

THDWID employees inspecting the equipment shall use an inspection log to keep track of the equipment condition and ensure that all the relevant items are evaluated.

A. Inspection Protocols:

- Fixed ladders - Fixed ladders are to be maintained in a safe condition, and all ladders shall be inspected regularly, with the intervals between inspections being determined by use and exposure.
 - Fixed ladders are required to be protected from deterioration.
 - Metal ladders and appurtenances shall be painted or otherwise treated to resist corrosion and rusting when location demands.
 - Ladder rungs in a corrosive atmosphere shall be a minimum diameter of 1 inch or shall be painted or otherwise treated to resist corrosion that is maintained in good repair.
- Pressure Gauges
- Tubing
- Pipe and Fittings

**Appendix A
CONFINED SPACE ASSESSMENT, CLASSIFICATION
AND ENTRY PERMIT WORKSHEET**

Confined Space Assessment and Classification:

1. Potential Confined Space and Specific Location:

2. Reasons for Entry and how frequent:

3. Is there a potential hazardous atmosphere? If not why?

4. List other potential hazards:

5. Who last entered and why? Any comments on possible problems during the entries?

6. Specific Conditions of the Space and Space Test Data:

SPACE CLASSIFICATION: This space meets the following requirements: (**Note** if the space is classed as IDLH/Dangerous then a permit must be issued.)

PERMIT _____ ALTERNATIVE PROCEDURES _____ NON-PERMIT _____

Entry Permit:

Designated Entrant(s): _____

Designated Attendant: _____

Safety Officer/Entry Supervisor _____

Date _____

APPENDIX O
EMPLOYEE PAYMENT

EMPLOYEE PAYMENT

Approved modifications 4/12/11.

Instructions for employees to receive their hourly paychecks.

1. All new employees that are to be paid from Tonto Hills Water Improvement District must contact the Treasurer of the Board within 7 days prior to the start of their employment.
2. New Hire employees must submit to THDWID board liaison the following documents to receive employee payments on time.
 - Federal I-9
 - Federal W-4
 - Arizona A-4
 - Arizona New Hire form
 - Direct deposit form (optional)
3. At the time of submittal there must also be 2 forms of approved ID for employment.
4. At the time of submittal, contact information and instructions will be provided in case of issues in receiving payroll payments.
5. After the initial enrollment, time cards must be completed by hourly paid employee's and signed by a THDWID board member. This Time card can be hand delivered or e-mailed to the treasurer for processing. Hours must be received 7 business days prior to the next payroll date of either the 1st and 15th of each month.
6. No time cards are needed for salaried employees, but activity log sheets may be requested.
7. The THDWID board liaison will verify information turned in and authorize payroll to be released.
8. If logs and/or time sheets are requested and not received prior to payroll dates of the 1st/15th, Payroll could be held back until the proper logs are received.
 - Note: Logs and/or time sheets can be turned in to liaison at any time. No need to wait until the last minute.
9. It is preferable to exchange this paperwork at regular get-togethers (like board meetings) rather than trying to hookup independently.
10. The THDWID board liaison will receive (usually by email). A copy of the signed time card and activity log for District records.

See the following for activity log.

Tonto Hills Domestic Water Improvement District

Activity Log

Time _____

Expenses (Receipts) _____

Date	Start	End	Total	Description of Activity	Amount	Payee	Description	Miles

Total Time _____

Expense Total _____

Total Mileage _____

APPENDIX P
EMPLOYEE HANDBOOK

TONTO HILLS DWID

11228 E. Hohokam Lane

Cave Creek, AZ 85331

Page 1 of 13

FINAL
Employee Management Guidelines
for the
Tonto Hills Domestic Water Improvement District
February 27, 2019

1.0 DISCLAIMER OF CREATION OF CONTRACTUAL RIGHTS; RESERVATION OF DISTRICT RIGHTS

- 1.1 All employment with the Tonto Hills Domestic Water Improvement District (THDWID) is “At Will”. This means that either the THDWID or the employee may sever the relationship at any time with or without reason. The THDWID employment guidelines and practices are intended as general guides. They do not create a contract or individual contractual rights between employees and the THDWID and do not alter the “At Will” nature of the relationship. No individual officer, representative, agent or employee of the THDWID is authorized to enter into oral contracts, and oral statements, representations, or promises are not binding on the THDWID.

- 1.2 No employee handbook can anticipate every circumstance or question about personnel management. Although the described Guidelines reflect likely results, the total circumstances will be considered in every situation. The THDWID has the complete and exclusive discretion to interpret and administer each of these Guidelines. The THDWID has the right to revise, supplement, deviate from, amend, modify, terminate, suspend or rescind, in whole or in part, any portion of this handbook at any time with or without notice. The THDWID will attempt to notify employees of all substantive changes to the handbook, but an employee has the responsibility to ask for and to consult the most recent version of any Guideline that may affect them from time to time, and an employee who does not undertake this responsibility will be presumed to have waived any right to notice that the employee may assert.

2.0 DEFINITIONS

- a. **“Guidelines”** means the Employee Management Guidelines for the District, June 2017, or as subsequently amended and restated from time to time.
- b. **“Less than thirty (30) hours per week or the equivalent thereto”** for purposes of this Program, means any time actually worked together with any earned leave, as defined herein, if such earned leave is applicable.
- c. **“Part-time employee”** for the purposes of this Program, means any employee who works an annual average of less than thirty (30) hours per week or the equivalent thereto, irrespective of the District’s definition of a “part-time employee” for any other purposes.
- d. **“Payroll benefits”** mean those benefits that are voluntarily created and maintained by the District as part of its payroll practices and are paid out of the general assets of the District
- e. **“Program”** means the Program for Provision of Statutory and Payroll Benefits.
- f. **“Regular bi-weekly compensation”** means that salary or compensation normally earned by an employee.
- g. **“Statutory benefits”** mean those benefits that are created or mandated by statute, law or regulation. Workers’ compensation benefits are statutory benefits.
- h. **“Temporary employee”** means any employee, full - or part-time, who works less than four (4) consecutive months per year.
- i. **“Thirty (30) or more hours per week or the equivalent thereto”** for purposes of this Program, means any time actually worked together with any earned leave, as defined herein, if such earned leave is applicable.
- j. **“District”** means the Tonto Hills Domestic Water Improvement District (THDWID)

3.0 THE DISTRICT PROGRAM FOR THE PROVISION OF STATUTORY BENEFITS AND LEAVE

3.1 General.

3.1.1 This Program is intended only to generally describe benefits available to employees of the District and does not establish a contract or guarantee of employment or any contractual rights to benefits described herein. **The District reserves the right to revise, supplement, deviate from, amend, modify, terminate, suspend or rescind, in whole or in part, any benefit offered by the District, including legally regulated benefits, at any time and for any reason, subject to any applicable legal requirements.** Benefits eligibility and administration may be dependent upon a variety of factors, including your cooperation with the requirements for receipt of benefits or the language of any official plan document created by a third party provider. If there is a conflict between the District Program and an official plan document, the official plan document will take precedence and will control. No representation or oral statement made by any individual officer, representative, agent or employee of the District may amend the terms of benefit plans or bind the District in relationship to any benefits provided under this Program.

3.1.2 The District is a small nonprofit county water improvement district with limited resources. Therefore, the District intends to employ only part-time and temporary staff and to provide only statutory benefits, such as Workers' Compensation Insurance. Other benefits, such as paid vacation, paid holidays, paid leave of absence, retirement benefits, and medical, dental and vision care, life, short-term disability insurance, are NOT provided by the District.

3.2 Eligibility.

3.2.1 There are no minimum terms of service to qualify employees for statutory benefits.

3.3 Statutory Benefits.

3.3.1 Workers' Compensation Insurance. Workers' compensation benefits are created by Arizona law and provide medical and indemnity benefits. Indemnity benefits are based on statutory maximum rate of two thousand four hundred dollars (\$2,400.00) per month. All employees are covered by this form of insurance at no cost to the employee.

3.3.2 Military Leave. Military leave shall be granted in accordance with applicable law.

3.3.3 Jury Leave. All full-time and part-time employees are eligible to take time off work to comply with a summons to jury duty, but this statutory benefit does not include paid time off.

3.3.4 Sick Leave. Employee sick leave will be accrued and managed in accordance with the Arizona Administrative Code, Title 20, Chapter 5, Article 12. Employees are entitled to accrue a minimum of one hour earned paid sick time for every 30 hours worked, but are not entitled to accrue or use more than 24 hours of earned paid sick time per year. This applies to exempt and non-exempt employees.

3.4 Other Leave and Overtime.

3.4.1 Personal Leave Time. All expected absences must be reported to the District Board, Clerk or Superintendent as much time prior to such absence as is possible. If the absence is unexpected, it should be reported to the District Board, Clerk or Superintendent by 8:00 am on the day the absence occurs.

3.4.2 Compassionate Leave. Unpaid compassionate leave may be granted by the District.

- 3.4.3 Holidays. The District may grant unpaid holidays. All federal holidays are established by the District as days off without pay.
- 3.4.4 Compensatory Time/Overtime. It is the District's intent to avoid the necessity for overtime whenever possible; however, overtime may sometimes be necessary to meet emergency situations, seasonal or peak workload requirements. The Superintendent is responsible for the advance planning required to minimize the need for overtime.
- (a) Non-exempt Employees. Hourly employees who are covered by the Fair Labor Standards Act of 1938, as amended (the "FLSA"), are considered "non-exempt" employees. A non-exempt employee is entitled to either compensatory time off or overtime pay when the Company requires that employee to work more than forty (40) hours in one (1) week. Compensatory time-off and overtime pay are accrued at the rate of one and one-half (1.5) hours for each hour worked in excess of forty (40) hours per week. Non-exempt employees who are called in on an emergency basis to work overtime on Saturday, Sunday or a Holiday will be compensated at the rate of one and one-half (1.5) times their regular hourly rate, even if such time is not in excess of forty (40) hours/per/week.
 - (b) Salaried Employees. Salaried employees are generally not covered by the FLSA and are considered "exempt employees." Exempt employees are not entitled under the law to overtime reimbursement, either by compensatory time off or compensatory pay. However, under this Program, the work agreements made by District with the District Superintendent and the District Certified Operator provide for payment of an hourly rate for out-of-scope and emergency services.
 - (c) Accrual. The District does not accrue comp time.
 - (d) Deductions for Absences of Employees. Deductions of pay of employees are required for reasons of public accountability when an employee chooses to take leave without pay. Due to the part-time and largely unscheduled nature of the work conducted by exempt District employees, the interpretation of leaves without pay will be made on a case by case basis by the District Board.
 - (e) Retirement Benefits. The District does not provide retirement benefits.
- 3.5 Travel, Transportation, and Other Job-Related Costs.
- 3.5.1 General. Whenever an employee is required to travel on District business, the employee shall be reimbursed for all pre-approved reasonable transportation costs, such as meals, airfare or hotel expenses. In order to be reimbursed:
- (a) The expenses must be deductible as business expenses incurred while performing services for the District.
 - (b) An employee will be required to account for all expenses by completing an expense report and providing receipts or other proof of expenditures that are reasonably related to District business.
- 3.5.2 Mileage. Whenever an employee is authorized to use a personal vehicle in the performance of official District duties, the employee shall be compensated at the federally approved business mileage allowance as published in the GSA/IRS Mileage Reimbursement Rates. Employees must submit claims for mileage reimbursement within sixty (60) days, using forms provided by the District. Two exceptions to this policy are the mileage expense for the meter reader and the Certified Operator when conducting normally scheduled work or reasonably anticipated unscheduled work that is within their scopes of work (it is understood that their normal compensation includes the cost of personal vehicle use in their work).

- 3.5.3 Travel Expenses. Any employee traveling on District business approved by the District Board shall be compensated for transportation and lodging expenses, and up to fifty dollars (\$50.00) per day for actual meal expenses. The employee must account for all expenses by completing an expense report and providing receipts or other proof of expenditures to the District Treasurer
- 3.5.4 Miscellaneous Expenses. Occasionally, employees may find it more convenient to pay for equipment or incidental items needed by the District using their own money. All such expenses must be approved in advance by the Superintendent and/or District Board. Employee shall be reimbursed for all such approved expenses by completing an expense report and providing receipts or other proof of expenditures to the District Treasurer.

4.0 STANDARDS OF CONDUCT

- 4.1 Equal Employment Opportunity. In order to provide equal employment and advancement opportunities to all individuals, employment decisions at the District will be based on merit, qualifications, and abilities. The District does not discriminate in employment opportunities or practices on the basis of race, color, religion, gender, national origin, age, disability, or any other characteristic protected by law, to the extent required by law.
- 4.1.1 Upon request, the District will make reasonable accommodations for qualified individuals with known disabilities unless doing so would result in an undue hardship.
- 4.1.2 These Equal Opportunity Guidelines govern all aspects of employment, including selection, job assignment, compensation, discipline, termination, and access to benefits and training.
- 4.1.3 Any employees with questions or concerns about any type of discrimination in the workplace are encouraged to bring these issues to the attention of their immediate supervisor, the Superintendent or the District Board President. Employees can raise concerns and make reports without fear of reprisal. Anyone found to be engaging in any type of unlawful discrimination will be subject to disciplinary action, up to and including termination of employment.
- 4.1.4 Harassment. The District intends to prevent any type of unlawful harassment of its employees, and to immediately respond to complaints of unlawful harassment.
- (a) Harassment Prohibited. The District is committed to maintaining a work environment that encourages and fosters appropriate conduct among employees. Accordingly, the District enforces its prohibition against unlawful harassment at all levels within the workplace to create an environment that is free from discrimination and harassment based on race, color, religion, gender, national origin or disability, and including specifically sexual harassment.
- (b) Recognizing Sexual Harassment. Sexual harassment includes unsolicited, offensive behavior that inappropriately asserts or emphasizes sexuality or gender. Generally, any unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct based on gender constitute inappropriate conduct, when:
- (i.) Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment;
- (ii) Submission to or rejection of such conduct by an individual is used as the basis for employment decisions; or
- (iii) Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive working environment.
- 4.2 Sexual harassment takes many different forms, as can be seen by the following examples, which are designed to be illustrative but not all-inclusive
- 4.2.1 Verbal Harassment. Examples of verbal harassment are sexual innuendo; suggestive comments; insults; humor and jokes about sex, sexual preference or gender-specific traits; sexual propositions or persistent unwanted requests for dates; or threats.
- 4.2.2 Non-verbal Harassment. Examples of non-verbal harassment are suggestive or insulting sounds; leering; whistling; obscene or suggestive gestures; written, pictorial or photographic materials relating to sex, sexual preference or gender-specific traits.
- 4.2.3 Physical Harassment. Examples of physical harassment are touching, including inappropriate hugging or kissing; pinching; brushing the body; coerced sexual contact or sexual

assault of any nature; any type of assault which is related to sexual issues or issues of gender or sexual preference.

- 4.2.1 Retaliation. Examples of retaliation are unwarranted discipline of the reporting party; involuntary changing of the work assignment of the reporting party for no valid reason; refusing to cooperate with or communicate with the reporting party ("stone-walling"); intentionally pressuring the reporting party to withdraw the complaint; falsely denying a charge of sexual harassment; lying about or otherwise covering up sexually harassing conduct.

- 4.3 Managerial and Supervisory Responsibility. All employees, supervisors, and managers are required to ensure that employees adhere to and comply with the Anti-harassment Guidelines. If any employee or supervisor is informed of or observes any type of harassment, including sexual harassment, he or she must take immediate action, including informing employees of the contents of the Anti-harassment Guidelines and reporting the behavior to his or her supervisor, the District Superintendent or the District's Board of Directors.
 - 4.3.1 Responsibilities of District President. The President is responsible for administration of the Anti-harassment Guidelines and for communication of them to all employees. Such communication may include meetings and/or written communications with employees and supervisors, or other such training devices. Additionally, the President is responsible for following up on a complaint of harassment to ensure that there is no retaliation against the reporting employee and no continuation of harassing behavior.

- 4.4 Reporting. An individual who believes he or she has been subjected to harassment while working from any other employee, supervisor, vendor, citizen or resident of the Town, should bring that concern to the attention of his or her immediate supervisor. If the complaint involves someone in the reporting party's direct line of supervision, then the individual should inform another person within higher levels of management, the or the President of the District.

- 4.5 Procedures for Handling of Harassment Complaints. The District will promptly investigate all claims of harassment, maintain confidentiality to the extent possible, and take appropriate corrective action when an investigation confirms harassment has occurred. Investigation may include interviews with the parties involved in the incident and, if necessary, with individuals who may have observed the incident or conduct or who have other relevant knowledge. The Anti-harassment Guidelines also prohibit retaliation of any form against any employee who brings any type of harassment charges or who assists in the investigation of such charges. Harassment in work situations by any employee will result in disciplinary action up to and including dismissal, and may lead to personal legal and financial liability. The affected parties will be notified of a decision or of the status of the investigation when the investigation has been completed.

5.0 SAFETY AND SECURITY GUIDELINES

- 5.1 Purpose. The District will not tolerate Safety and Security Violations, defined as:
- (a) loss or destruction of District Property or the property of the District's employees, visitors and members; and
 - (b) threats to the safety or well-being of the public at large or of the District's Property, employees, visitors and members
- 5.2 Definitions. For the purposes of the Safety and Security Guidelines:
- (a) "Alcohol" means ethyl alcohol (ethanol), isopropanol or methanol. References to use of Alcohol include the use or possession of any beverage, mixture or preparation containing ethanol, isopropanol or methanol.
 - (b) "Controlled Substance" means any substance or metabolite of such substance, the possession or distribution of which is unlawful under the Controlled Substances Act, as updated pursuant to that act (21 United States Code § 812). Such term does not include the use of a Drug taken under supervision by a licensed health care professional, or other uses authorized by the Controlled Substances Act or other provisions of Federal law.
 - (c) "Drug" means any substance (other than Alcohol) with a known propensity to alter the physical or mental function of a person. Drugs specifically include psychoactive substances, Illegal Drugs or Controlled Substances.
 - (d) "Illegal Drug" has the same meaning as the term "Controlled Substance."
 - (e) "Personal Property" means any property not owned, leased, originated or provided by the District, including, but not limited to, knapsacks, food containers, purses, wallets, clothing, vehicles, electronic equipment, and all other all property owned by employees, District members or visitors that is brought onto or into District Premises.
 - (f) "District Premises" means all work places, buildings, operative sites, facilities, and surrounding areas such as sidewalks, walkways, parking lots, garages, vehicles, storage facilities and driveways owned, leased or controlled by the District. District Premises includes any facility or building temporarily occupied, leased or possessed by the District for the purpose of District-sponsored events, meetings, functions, parties or entertainment.
 - (g) "District Property" means all tangible and non-tangible facilities, equipment or goods, which are owned or leased by the District, are under the District's control. District Property includes any such items that may be provided to employees for District business use only, such as vehicles, offices, files, papers, tools, products, materials (including salvageable or non-salvageable components, scrap, reject materials, etc.), telephones, e-mail, desks, computers, cabinets, containers, files, lockers, other storage areas, supplies or equipment that have been provided or produced by the District or have been converted from intangible to tangible form by any individual. District Property includes District Premises as defined in these Guidelines.
 - (h) "Violence" means threatening to physically harm or physically harming oneself or another. It is the intent of these Guidelines to ensure that no one associated with the District, including employees, visitors or citizens, ever feels threatened by any employee's actions or conduct.
- 5.3 Prevention of Violence in the Workplace - Zero Tolerance. The District has zero tolerance for Violence. If an employee engages in any Violence in the workplace, or threatens Violence in

the workplace, disciplinary action will be immediately undertaken, up to and including immediate termination.

5.3.1 Reporting Violence. It is everyone's business to prevent Violence in the workplace. Employees are expected to report any Violence or potential Violence in the workplace. Employees are encouraged to report any incident that may involve a violation of any of the District's Safety and Security Guidelines. Concerns may be presented to your supervisor, the Superintendent or the President of the District. All reports will be investigated and information will be kept confidential to the extent practicable and appropriate in order to protect the privacy and safety of persons involved. However, the investigation may include interviews with the parties involved in the incident and, if necessary, with individuals who may have observed the incident or conduct or with individuals who have other relevant knowledge.

5.3.2 Safety. Basic safety precautions, which any careful worker would naturally employ, are expected to be exercised by all employees. Employees are responsible for abiding by safety procedures and for using good safety judgment.

5.3.3 Workers' Compensation. All accidents, however minor, must be reported immediately to an employee's supervisor. Further detailed information will be given to employees who are injured on the job or suffer an occupational illness

5.3.4 Substance Abuse. The District recognizes that reduction of substance abuse will improve the safety, health, productivity and general well-being of all employees, members of the District, visitors and the public at large. The District intends to provide a safe and healthy workplace for all employees; to productively meet the needs of our citizens; and to comply with all legal obligations.

(a) Basic Rule. Use, possession, manufacture, distribution, dispensation, transportation or sale of Alcohol or Drugs ("Alcohol or Drug Violations") while on duty or on District Premises is prohibited, with the exception of the use or possession of prescription medicine (see the Prescribed Medication section in the Substance Abuse Guidelines).

(b) Prescribed Medication. An employee taking medicine prescribed by a doctor that may alter his/her physical or mental ability to safely perform his or her job must report this treatment to their supervisor. The supervisor and the District Superintendent will determine whether a temporary or permanent change in the employee's job assignment is warranted. The employee will grant his or her supervisor and the District President permission to discuss with the prescribing doctor the potential effects of the medicine on the employee's job performance. All information gained by the employee's supervisor and the District President will remain confidential, except as reasonably necessary to ensure the safety of the public, District members and employees, and to ensure that job requirements and applicable legal requirements are met.

(c) No employees shall conduct THDWID work responsibilities or tasks while under the influence of any controlled substance.

5.4 Unacceptable Conduct. The Tonto Hills Domestic Water Improvement District's Code of Conduct, establishes standards of conduct for the guidance of all employees and supervisors. Violations of the District's standards of conduct may lead to disciplinary action up to and including termination. In addition to the Code of Conduct, the following represents an illustrative guide of unacceptable conduct, as it is impossible to include every conceivable example of conduct violations.

(a) Violation of any District Guideline, rule or regulation;

- (b) Violation of the law with regard to the conduct of District business, such as accepting or providing bribery or kickbacks, engaging in conflicts of interest, or violating the open meeting laws;
- (c) Conduct, which may or may not be a violation of the law, which involves or threatens District property, premises or personnel, or which reflects poorly on the District's regard or reputation in the community;
- (d) Theft, fraud, dishonesty, sabotage, destruction, damage or unauthorized possession or use of District time, property or money;
- (e) Falsification of any documents provided to or by the District;
- (f) Any action that could be construed as discrimination or harassment in violation of the District's Equal Employment Opportunity Guidelines;
- (g) Workplace Violence, as defined herein, or any other threatening, disruptive, coercive, abusive behavior or interference with the performance of other employees;
- (h) Insubordination, refusal to comply with instructions or failure to perform reasonable duties which are assigned;
- (i) Failure to follow safety rules or failure to act with reasonable caution or care;
- (j) Engaging in any other acts, conduct or behaviors that, in the District's sole discretion, are considered inconsistent with ordinary and reasonable standards of conduct or behavior necessary to the welfare, legality or success of the District, or would negatively affect the District's duties to the public at large or its duties to its employees, members or visitors.

6.0 MANAGEMENT GUIDE

- 6.1 Work Schedule. Due to the nature of the work the District conducts and the part-time or temporary nature of its work force, work is conducted in tasks that do not necessarily follow a set or strict schedule. Generally, there is no minimum number of hours required to be a part-time or temporary employee. Conversely, it is the District's intent to not have full-time employees. It is the District's intent to have a flexible work schedule that accommodates timely completion of the necessary work tasks without unnecessarily restricting the employees' personal schedules. Nevertheless, employees must be available for work as conditions require to maintain 24-hour/7-days-per-week proper operation of the District drinking water system.
- 6.1.1 The District Board and Superintendent shall schedule available workers to suit the needs of the District within the framework described above. It is the employee's responsibility to provide reasonable advance notification to the District Board and Superintendent of periods when he/she will not be available so that timely arrangements can be made to provide continuous staffing for District operations.
- 6.1.2 The typical District office hours are 9:00 am to 12:00 pm Monday through Friday, and are currently staffed by the District Clerk and Superintendent, who have established the office in their common Tonto Hills residence. Office work is conducted on an as-needed basis and the District office phone system is equipped with an answering system that records caller messages. These messages are downloaded each day and forwarded to the proper Board member or employee for response.
- 6.1.3 Employees are expected to report to work on time within the arranged work schedule.
- 6.1.4 Time-sheets must be completed by all employees for each pay period they worked and should be accurate. Time-sheets shall be submitted in accordance with the P & Ps.
- 6.2 Pay Days. All salaried and hourly personnel will be paid semi-monthly for work conducted, for a total of twenty-six (24) pay periods per year. The normal pay days are the 1st and 16th of each month, or on the next work day if these days fall on a weekend or holiday.
- 6.3 Problem Resolution. If an employee disagrees with an employment decision or with administration or implementation of Guidelines or practices, the employee can express his or her concern through meetings with a supervisor. No employee will be penalized, formally or informally, for voicing a complaint with his or her supervisor or the District President in a reasonable, business-like manner.
- 6.4 Termination of Employment. Because all employees are "at-will," there is no employment contract with the District. The District would, however, appreciate it if employees planning to resign from the District's employment would file, with their supervisor, a written resignation at least fourteen (14) calendar days prior to the final work day. The written resignation shall be forwarded to the District Treasurer immediately for payroll purposes. Upon separation, employees will receive payment for all wages earned up to the date of separation, in accordance with applicable law.

Employee Acknowledgment Form

I have received a copy of the Employee Management Guidelines for the Tonto Hills Water Improvement District, (THDWID) and understand that I should contact my supervisor regarding any questions not answered in the Guidelines. If my supervisor is not available, I understand that I should direct any questions concerning the Guidelines or any other request or question to the District Administrator.

I have entered into my employment relationship with the District voluntarily and acknowledge that there is no specified length of employment. Accordingly, the relationship is “at will” and either I or the District can terminate the relationship at will, with or without cause, at any time.

I understand that revised information may supersede, modify, or eliminate existing Guidelines and that the Guidelines may be amended or terminated, in whole or in part, with or without notice, at any time. Since the Guidelines are necessarily subject to change, I acknowledge that I am responsible for checking for updates on the Guidelines that affect me.

I understand that the District’s rights as an employer is not subject to revision or exception, that the Guidelines do not create a contract or contractual rights in the continuation of any specific employment practice, benefit, procedure or Guideline; and that no individual may bind the District by making oral representations. I hereby agree that I have no contract of employment with the District and no contractual rights to the continuation of any specific employment practice, benefit, procedure or guideline.

I have read, understood and agree to abide by the District’s Guidelines regarding the District’s equal employment standards of conduct and the District’s prohibition of sexual harassment, and I understand and agree that I have the responsibility to report any such harassment that I have witnessed or experienced. The District has communicated to me, and I am familiar with the procedures for reporting sexual harassment.

EMPLOYEE'S NAME (printed): _____

EMPLOYEE'S SIGNATURE: _____

DATE: _____

APPENDIX Q

**TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT
CONSERVATION AND DROUGHT CONTINGENCY PLAN**



Tonto Hills Domestic Water Improvement District

Water Conservation and Drought Contingency Plan

Prepared and Approved by:

Tonto Hills Domestic Water Improvement District (THDWID)

10 September 2014

EXECUTIVE SUMMARY

Tonto Hills Utility Company (THUC) acquired a water allocation of 71 acre-feet per year from the Central Arizona Water Conservation District (CAWCD) via the Central Arizona Project (CAP) canal and brought it online in March 2004. This allocation was one of the assets purchased by the Tonto Hills Domestic Water Improvement District (THDWID) in December 2010. Currently, the CAP supply is the only feasible long-term source of water for the Tonto Hills community.

The Water Conservation and Drought Contingency Plan of the Tonto Hills Domestic Water Improvement District (THDWID) is an integral part of the District's overall policies and procedures. Drought is a natural climatic condition, which has occurred many times in the past and which will occur again. The purpose of this plan is to provide a management framework to address water conservation. In addition, it will be used to manage water shortages or emergencies that result in temporary loss or reduction in service due to non-climate related factors. Because Arizona is so dependent on the Colorado River as the main renewable water source, it becomes more vulnerable to a drought-induced water shortage. In the event Colorado river water deliveries are reduced to Tonto Hills, THDWID customers may be affected. This plan provides a management framework to deal with possible water shortages.

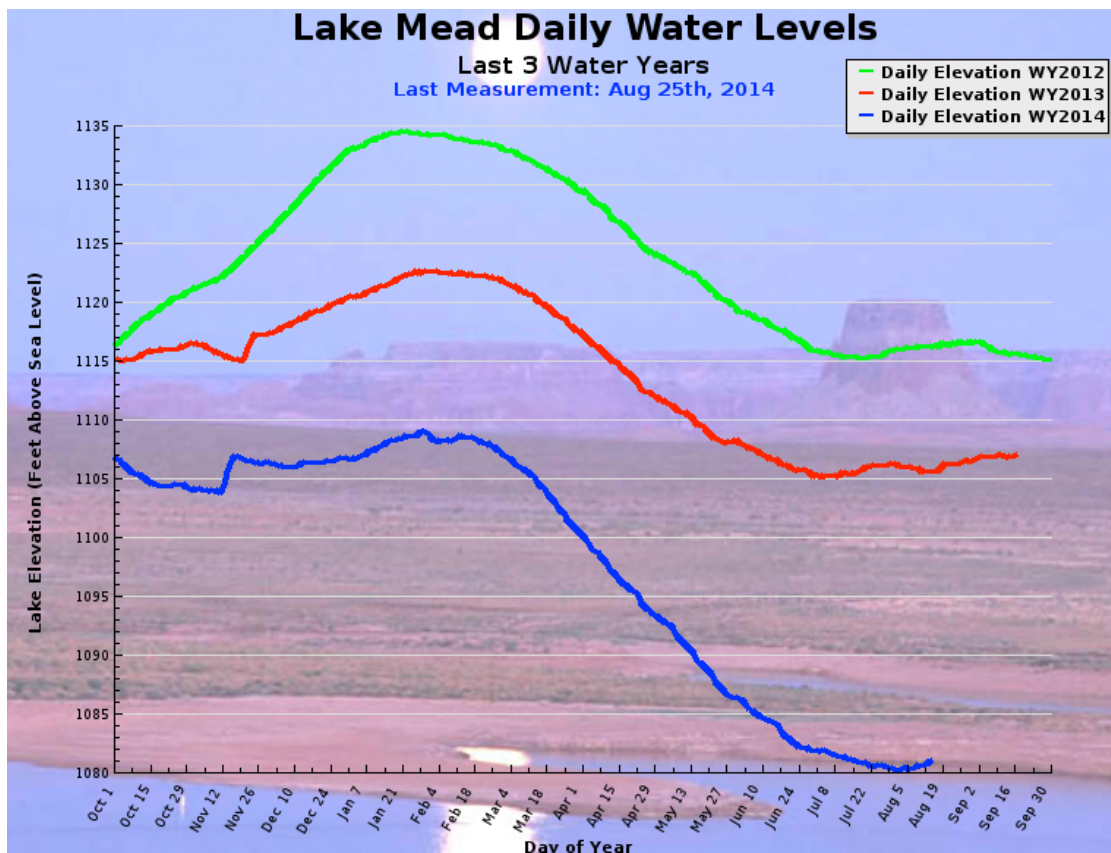
The Arizona Department of Water Resources (ADWR) requires the development of water conservation plans for water districts and public suppliers. A water conservation plan is defined as:

“A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management documents(s).”

- ADWR requires all water districts must, through management procedures and water conservation plans, to develop and maintain the following:
 - Utility Profile
 - Specification of Goals Before January 2013
 - Specification of Goals After January 2018
 - Accurate Metering
 - Universal Metering
 - Determination and Control of Unaccounted Water
 - Public Education and Information Program
 - Non-Promotional Water Rate Structure
 - Reservoir (Water Tank) System Operation Procedures
 - Means of Implementing and Enforcement
 - Coordination with Regional Water Planning Group

Arizona is in the midst of a prolonged drought that has significant impacts on our environment. Specifically regarding water supplies in central Arizona, the current drought does not immediately equate to water shortage. Tonto Hills is not running out of water. In fact, the THDWID water supply is guaranteed for 100 years through a contract with the federal government and State of Arizona for Central Arizona Project surface water. Also, the THDWID is steadily working toward efficient management of our allocation, acquisition of additional supplies, and utilization of water banking and storage credits rather than relying solely on our CAP water source. During the last ten years, Arizona has seen a decline in water resources exacerbated in large part by the drought. The graph below shows the Lake Mead daily water levels for the last three years. With less water available due to decreased precipitation and overall water demand growing, the cumulative decline in water levels in the lake is increasing.

Historic Water Level Decline in Central Arizona (1)



This Conservation and Drought Contingency Plan will respond to possible reductions in CAP surface water allotment or to the inability to satisfy system water demand for any reason. The plan describes our general water conservation approach and potential actions (if required) in drought contingency planning. The conservation section focuses on the effective and efficient use of the THDWID water allocation. Components of the plan include minimizing unaccounted water usage, implementation of a pricing structure to encourage water conservation, and development of a consumer education plan on conservation.

The drought contingency section details the THDWIDs approach for managing water shortages due to drought or water emergency conditions. Included in this section are defining of critical water conditions, defining and implementing levels of water restrictions, methods of publicizing restrictions, and enforcement. Each drought or water shortage stage is associated with a set of response measures. Each successive stage from Stage I to Stage IV represents an increasingly severe condition and includes an increasingly stringent list of response measures. **Table 1** below summarizes the four stages.

Table 1 - Summary of Water Shortage Condition Stages and Planned Response

Conservation Stage	Planned Response
Stage One - Water Watch Normal Operations	<ul style="list-style-type: none"> •Increase Customer Awareness thru Conservation Education •Continue Overall Water Management Efforts
Stage Two - Water Warning THDWID BoD monitors drought conditions; precipitation last 12 months AND Overall Lake Mead water levels	<ul style="list-style-type: none"> •Voluntary Reduction of Water Use by 5% •Request Voluntary Water Reduction Measures <ul style="list-style-type: none"> - Limit Landscape Watering to every other day after 8:00 pm and 6:00 am - Avoid other outdoor water uses including misters and car washing •Continue Overall Water Management Efforts
Stage Three - Water Alert Any combination of build out, water use, and adjustments to useable allocation causes 80% or more of the total useable allocation to be used.	<ul style="list-style-type: none"> •Mandatory Reduction of Water Use by 5% •Require trucked water for new construction •Institute Conservation / Drought Stage 3 tier 3 rate structure •Mandatory Water Reduction Measures <ul style="list-style-type: none"> - Limit Landscape Watering to every other day after 8:00 pm and 6:00 am - Avoid other outdoor water uses including misters and car washing - All pools and spas must be covered with evaporation inhibiting material. •Continue Overall Water Management Efforts
Stage Four-Water Emergency Any combination of build out, water use, and adjustments to useable allocation causes 90% or more of the total useable allocation to be used	<ul style="list-style-type: none"> •Mandatory Reduction of Water Use by 10% •Institute Conservation / Drought Stage 4 tier 4 rate structure •Continue stoppage of Potable Water use for Construction •Require Additional Mandatory Water Reduction Measures <ul style="list-style-type: none"> - Ban filling pools or spas. Turn off fountains - Ban Landscape Irrigation except to trees and shrubs 1 day per week between 8:00 pm and 6:00 am - Ban irrigation of turf or ground covers - Ban car washing •Continue Overall Water Management Efforts

1.0 INTRODUCTION

Water conservation is a priority for the Tonto Hills Domestic Water Improvement District (THDWID). A plan is required to implement conservation projects and efforts in a manner that protects the water resource allocated to this community. The water supply has always been a key issue in the development of Tonto Hills. The seventy-one (71) acre-feet per year of water allocated to Tonto Hills by contract with the Central Arizona Project (CAP) is our sole source of water, other than expensive emergency water trucking. Recent growth in the community has led to growing demands for water. About half of our annual CAP allotment is now used by the THDWID. The THDWID Board is preparing for unforeseen interruptions in CAP water supply by banking our unused CAP allocation at a Groundwater Savings Facility and obtaining long-term storage credits against which Scottsdale can pump groundwater in lieu of CAP water to temporarily continue meeting our needs, if necessary. The district began water banking and accumulation of storage credits with a recharge facility in 2013. These storage credits will be a source of additional water during times of critical need. The district is also investigating additional supplies to meet future demands that might exceed our allocation because these may be expensive and difficult to develop, and may not be available at all. Therefore, it is important that we make efficient use of existing supplies and make them last as long as possible. These efforts will eliminate or delay the need for new supplies, minimize the environmental impacts associated with developing new supplies, and delay the high cost of additional water supply development.

A drought plan establishes the criteria for action and endeavors to achieve the least possible impact on the community. The Arizona Department of Water Resources (ADWR) requires all water providers to have a water conservation and drought contingency plan. Although no water shortages currently exist, no one knows how long the current drought conditions might last; the longer it lasts, the higher the risk of water shortages. Some climatologists are predicting that we are in a 20 to 30 year drought cycle; therefore, it is important to have a plan in place that can respond to a reduction of our available water supply due to a drought.

Drought conditions can impact community water systems quickly and severely because they cause an immediate and continuous reduction in the water available to meet user demands. The failure to plan for potential shortages of water is irresponsible. The plan, to be effective, must be based on a comprehensive inventory of our water resources and the demand on that resource. By compiling this information, THDWID can develop a plan to protect these water resources through voluntary and mandatory means. A water conservation plan is a vision for the future health of our community. Recognizing the need for efficient use of existing water supplies, the THDWID has developed this water conservation and drought contingency plan for our water supply. The THDWID has adopted this water conservation plan pursuant to ADWR guidelines and requirements. The ADWR guidelines and requirements for water suppliers are referenced in Section 3.

The water conservation plan states the reasons for the plan's implementation as well as the expected goals of its application. The overall objective of this plan is to protect the water resources of Tonto Hills and maintain or improve this resource. The goals of the water conservation plan are:

- To reduce water consumption
- To reduce the loss and waste of water
- To improve efficiency in the use of water
- To extend the life of current water supplies by reducing demand

Not all uses of water are the same. Some uses, such as reserves for fire suppression, critical cooling applications, and medical necessity will have to take priority over less universally beneficial applications. Lower priority uses of the resource include landscape irrigation, maintenance of decorative fountains, and cooling of outdoor areas. Conservation planning gives the THDWID the opportunity to react quickly and implement appropriate restrictions early, while making allowances to meet specific needs of every situation. The THDWID is sensitive to the needs of its water customers and wants to be sure that all customers are treated the same should drought management conditions arise.

This Water Conservation and Drought Contingency Plan aims to supplement our water resources agreements. This plan adds procedures and strategies for water conservation as a practice and when our water supply may not meet our needs because of years of drought. Four essential components comprise our conservation plan. As a requirement of THDWID's agreement with the Central Arizona Water Conservation District (CAWCD), THDWID must develop an effective water conservation plan. At five-year intervals, THDWID will submit the plan to ADWR for review and approval. In keeping with those requirements, THDWID shall:

- a) Minimize the amount of un-billed water usage
- b) Have a pricing structure to encourage water conservation
- c) Develop and implement on an ongoing consumer education plan
- d) Institute new build requirements / remodel requirements (see Appendix B)
- e) Define critical water shortage conditions and restriction levels

The Plan provides ways for the THDWID and community to aid in water demand reduction when a water supply shortage occurs. The plan includes voluntary and mandatory conservation steps and actions based on the severity of water shortages. Each shortage stage, from Stage I to Stage IV represents an increasingly severe condition and includes an increasingly stringent list of response measures (see **Appendix A**). Although the THDWID Board of Directors may ask for voluntary reduction in water consumption at any time, the Water Conservation and Drought Contingency Plan is enacted by THDWID's Board of Directors because the legal framework for the Plan is established by Rule.

2.0 DEFINITIONS

Drought - Drought is a long period of abnormally low precipitation (rain or snow) or other forms of water supply shortage, especially one that adversely affects growing or living conditions which will cause a critical water condition. Drought can be caused by seasonal or

multi-year weather conditions, a curtailment of delivery from raw water suppliers because of water quantity or quality problems.

Ornamental Fountain - Ornamental fountain is any fountain that is solely or partially used for decorative purposes.

Potable Water - Potable water is water suitable or safe for drinking. Water is considered safe to drink if it meets or exceeds all of the federal, state, and local standards that are legally enforceable. If your water does not meet any one of these standards the supplier must notify its customers of the problem.

Supply Insufficiency - Supply insufficiency occurs when water available in an area is not sufficient to meet immediate unrestricted demand. While drought is usually systemic and regional in nature and of indeterminable length, a supply insufficiency may be system-wide or very localized, can be of relatively short duration, and may be caused by unforeseen increases in water demand or failure of a localized part of the storage or delivery system to provide a sufficient unrestricted supply of water.

3.0 WATER CONSERVATION PLAN

The THDWID plan includes a set of policies and procedures that defines our water conservation approach. Additional actions will be initiated based on the severity of the water shortage or drought. Although the district is not a municipality, municipal-scale enforcement options are available by rule. Yet the district must rely primarily on its customers to voluntarily comply with requests with water reduction. However, the district can implement a surcharge to its rate, limit potable water for construction use, limit water for swimming pools, and in the most severe drought response stage, not approve water service agreements for new construction projects. The main focus of THDWID's Water Conservation and Drought Contingency Plan is to continue its overall objective of sound water management. A primary tool is the current cooperation with Central Arizona Project (CAP) and the City of Scottsdale (CoS) to develop a renewable storage system. By converting our unused CAP water allocation into long-term groundwater storage credits, our water can be used to serve our future needs during times of water shortage.

3.1 Conservation Monitoring

A requirement of THDWID's agreement with ADWR is for THDWID to develop an effective water conservation plan. At five-year intervals, THDWID will submit the plan to ADWR for review and approval. In keeping with those requirements, THDWID shall minimize the amount of un-billed water usage by:

1. Reading consumer meters as close to the date that Scottsdale reads our Point of Entry meter as possible.

2. Reporting monthly on the total water received from Scottsdale, the sum total of water use based on the consumer meter readings, and the difference between these values in gallons as a percentage of received gallons.
3. Recording the gallons used by the Tonto Hills Volunteer Fire Department (THVFD), in line flushing, and other maintenance processes.
4. Tracking this difference over time and reporting the facts and trend to the Board of Directors monthly.
5. Reducing the difference between received gallons and billed gallons to at least 11%.
6. Identifying and rectifying the problem whenever the facts/trend indicates a potential problem and cost effective solutions.
7. Investigating and employing leakage detector technologies that make economic sense.
8. Comparing individual parcel usage vs. history. In the event usage spikes, notifying the owner of a potential problem and providing ideas on potential causes and solutions.
9. Executing a systematic plan for meter testing and cost effective replacement.
10. Installing water tank gauging technology to obtain realtime accurate tank water levels and track hourly usage.

3.2 Pricing Structure for Water Rates

The THDWID recently modified the rate structure from a three-tier water rate structure to five tiers. The rate structure was revised to encourage water conservation. Specific structure levels may vary, as determine by the Board of Directors to address specific water usage issues. The fourth and fifth tiers of the structure were created as a mechanism that could be adjusted if necessary, so excessive usage results in a higher unit price per gallon. The Board will continue to monitor water usage and pricing structures of nearby water companies.

3.3 Community Education on Water Conservation

The goal of the public education program is to generate an appropriate level of public awareness that results in active community participation. Areas of focus include; long-term management solutions, general awareness of water issues, and the recognition that Tonto Hills is a desert community with a desert's limited supply of water. The importance of educating community residents and property owners about the need to conserve water is critical. This is a long-term effort to promote conservation every year. This action will work to heighten awareness of drought and modify behavior to conserve water above and beyond normal use patterns. This Water Conservation Plan identifies a number of different techniques to increase community awareness about water conservation. These techniques include:

- Publish newsletters that inform individuals on conditions and restrictions
- Direction on how to read water meters and monitor individual water use
- Publishing semi-annual system high usage data
- Status letters to high volume water users

- Newsletters detailing suggested water conservation
- Referencing water conservation web site such as; amwua.org and city governments
- Giving water conservation updates at Tonto Hills Improvement Association (THIA) and annual THDWID General Meetings.
- Providing a FAQ section to the district web site including conservation Q & A's.

The greatest water savings can be achieved by combining the use of conservation devices with behavioral changes since these two actions tend to reinforce each other. A FAQ section will be added to the district web site that includes conservation questions and answers. Residential plumbing retrofit is one of the most practical and effective approaches in providing customers with "how-to" information on altering their water use habits. At the same time, it provides them with the technology to save water with the least impact on their lifestyle. Outdoor water use is a significant portion of everyday consumption in Tonto Hills. Water consumption increases as much as 40 to 60 percent from March through October. Voluntary restrictions, including time-of-day watering or odd/even watering based on house numbering, will be encouraged.

The THDWID shall develop and implement on an ongoing consumer education plan including:

1. Providing new residents with water conservation materials.
2. Provide material on efficient plumbing fixtures, pool covers, desert plants, landscape irrigation design, maintenance, and timer management, etc.
3. Distributing timely material on pipe freezing dangers and prevention. In the event of a burst pipe, work with the customer to minimize water loss and prevent future breaks.
4. Providing material to customers via newsletters, meetings, and personal visits.

4.0 DROUGHT CONTINGENCY PLANNING

This Water Conservation and Drought Contingency Plan aims to supplement our water resources agreements. This plan adds procedures and strategies for when our water supply insufficiency may not meet our needs because of years of drought. The Plan provides ways for the THDWID and community to aid in water demand reduction when a water supply shortage occurs. The plan includes voluntary and mandatory conservation steps and actions based on the severity of water shortages. Each shortage stage, from Stage I to Stage IV represents an increasingly severe condition and includes an increasingly stringent list of response measures (see **Appendix A**). Although the THDWID Board of Directors may ask for voluntary reduction in water consumption at any time, the Water Conservation and Drought Contingency Plan is enacted by THDWID's Board of Directors because the legal framework for the Plan is established by Rule.

The THDWID's plan includes a designated set of actions based on four drought condition stages defined by the district Board. CAP stages are based on the simple combination of the amount of precipitation during the last twelve months in the Colorado River Basin and the annual decline of overall water levels. Stage One (Water Watch) calls for voluntary customer actions.

There are times when members must limit their demand to achieve a level of fair and equitable usage. In addition, members must remember that we live in a time of extended drought and should expect to react accordingly. The THDWID has developed a water shortage contingency plan that includes: a) Defining levels of Critical Water Conditions, b) Defining respective water restriction levels, c) Publicizing the water restriction level to the Community, and d) Enforcing the water restrictions.

4.1 Voluntary Water Conservation Actions

Stage one is the THDWID's normal operations conservation stage. The THDWID will work to increase customer awareness about conservation, the drought, and water resources through education and information. THDWID will work with neighboring water providers to look at cooperative efforts that include providing emergency backup as well as joint conservation efforts. Most importantly, THDWID will continue its overall water conservation and management efforts on the water supplies and system. THDWID has been in the Stage One condition since its inception. Refer to Appendix A Table 1, Stage 1 - Water Watch.

Stage Two (Alert) is initiated when the precipitation of the last 12 months in the Colorado River Basin is 50% to 70% of normal and overall Lake Mead water levels declined annually 2.5' to 3.9' over a two year period. The THDWID requests customers to limit landscape irrigation to two days per week between 8:00 pm and 6:00 am as well as avoid other outdoor water uses. for example ban hosing down driveways and washing vehicles. Under Stage Two, all of the measures of Stage One will also continue. Refer to Appendix A Table 2, Stage 2 - Water Alert - Mandatory (Reduction Goal 5%).

4.2 Water Conservation Mandatory Actions

Should worsening drought condition stages occur or voluntary actions are not sufficient, mandatory actions may be required. The THDWID must implement an aggressive actions to reduce heavy water usage. A program is in place to assist in maintaining full metering of fire hydrant use, and to evaluate appropriate field or construction water use. The THDWID Superintendent shall monitor the projected supply and demand for water, by its highest use customers, on a daily basis during periods of emergency or drought and shall recommend to the Board of Directors the extent of the conservation required through the implementation and/or termination of particular conservation stages to prudently plan and supply water to its customers. The Board of Directors then may order the implementation and/or termination of the appropriate phase of water conservation. The declaration of any stage beyond Stage One shall be made by public announcement and shall be published a minimum of one (1) time for three (3) consecutive days within the community via email. The stage designated shall become effective immediately upon announcement.

Stage Three - Stage Three (Water Warning) is initiated when any combination of build out, water use, and adjustments to useable allocation causes **80% or more of the total useable allocation** to be used. In Stage Three, THDWID will not permit the use of potable water for

construction including dust control; water trucked in from outside the community must be used. Evaporation-inhibiting covers will be required for pools, ponds, spas, and other larger water features. THDWID Board will institute a Level 3 Conservation Rate Schedule that contains five tiers. Additional mandatory water reduction measures will be requested from customers including the limiting of landscape irrigation to one day per week between 8:00 pm and 6:00 am. In addition to avoiding outdoor water uses, customers will not be allowed to empty or fills their pools and fountains must be turned off. The other measures of Stage One and Stage Two will continue. Refer to Appendix A Table 3, Stage 3 - Water Warning - Mandatory (Reduction Goal 10%).

Stage Four - Stage Four (Water Emergency) is initiated when any combination of build out, water use, and adjustments to useable allocation causes **90% or more of the total useable allocation** to be used. Under Stage Four, THDWID will institute the Conservation Rate Schedule that contains five tiers. No potable water will be used for construction or the filling of pools, ponds, spas, and other large water features. Customers will be notified that a ban on landscape irrigation (except for trees and shrubs 1 day per week between 8:00 pm and 6:00 am) is in effect and no irrigation of turf or ground covers. All other previous measures will continue. The tables in Appendix A, Table 4, Stage 4 - Water Emergency Mandatory (Reduction Goal TBD by THDWID) summarizes the conservation requirements for each stage.

5.3 System Wide Restrictions and Penalties

An important concern created by a drought situation is the negative impact on revenues as a result of successful demand reduction. Such drops in revenue come at a time when operational expenses tend to increase. The district board has established financial systems that allow for fines, surcharges, or other measures to support the acquisition or development of new water supplies.

Charges for water consumption have significant influence on the amount of water consumed. If the drought condition continues to the point that voluntary conservation is not sufficient, the THDWID will implement means identified in Stages 3 and 4 to reduce water use during the critical period. The standard response in communities all across the country has been surcharges and rationing.

The surcharge amount will be determined at a drought stage based on the cost of services to implement water saving programs or acquisition costs necessary to meet reasonable water delivery demands. In Drought Stage Four, Water Emergency, the surcharge would be raised above revenue requirements specifically as a strong disincentive for use, until demand matches supply.

Future Boards may adopt water rationing as part of drought surcharges as an economical alternative. It will be up to future Board members to review consumption and determine the appropriate course of action. Price rationing, offers the consumer more flexibility in quality-of-life issues and has less impact on the districts revenue stream which has normal or higher-than-

normal operational expenses during a drought. The key elements of a successful rationing program are that:

- (1) The resources and the hardships are shared as equitably as possible, and
- (2) Customers are kept informed about the status of the shortage.

However, allocation disagreements are to be expected and procedures to handle valid exceptions and variances need to be part of the rationing program. Pertinent information regarding water use and supply must be published and disseminated at least weekly to continually reaffirm customer commitment. Physical rationing programs are generally patterned after one of these basic allocation plans: percentage reduction and specific use bans. To better demonstrate the difficulty and expense that would be created by choosing to implement physical rationing for a utility the size of THDWID, the various physical rationing plans are defined.

A percentage reduction assigns customers a consumption reduction goal, depending on water use, as a percentage of the consumption level used in a similar billing period during a normal season. Specific use bans are a rationing alternative; however, they do not increase or change the billing calculations. Instead they are imposed primarily through public education and enforcement. Specific use bans, such as landscape irrigation watering only every other day, prohibition on swimming pool filling, and prohibition on use of water features can be effective. Bans generate awareness and prioritizing of water use and they establish a sense of equity in the community. Another implementation approach is to define the reduction based on household occupancy and applying the appropriate Stage goal to industry standards of use.

Appendix A - Water Use Reduction Matrix

Stage One - Water Watch - Normal Operations Voluntary	
Residential & Commercial	Essential Use Exemptions
Request reduction of outdoor watering to every other day between 8 pm and 6 am	Any use to maintain health and safety of Tonto Hills water customers are exempt from water restrictions including THVFD
Request automobile washing only with bucket and hose with shut off nozzle	
Request fountain shut off, unless gray water is used or fountain is part of indoor cooling system, must be posted	
Request no washing down of sidewalks, decks, driveways, patios, etc.	
Request reducing use of misting in outdoor areas	

Stage 1 water use restrictions are voluntary.

Stage Two - Water Warning Voluntary (Reduction Goal 5%)	
Residential & Commercial	Essential Use Exemptions
Request voluntary reduction of water use by 5%	Any use to maintain health and safety of Tonto Hills water customers are exempt from water restrictions including THVFD
Request Voluntary Water Reduction Measures - Limit Landscape Watering to three times a week after 8:00 pm and 6:00 am	
Request automobile washing only with bucket and hose with shut off nozzle	
Request fountain shut off, unless gray water is used or fountain is part of indoor cooling system, must be posted	
Wash down of sidewalks, decks, driveways, patios, etc. prohibited	
Prohibit misting of outdoor areas	•

Stage 2 water use restrictions are mandatory

Stage Three - Water Alert - Mandatory (Reduction Goal 5%)	
Residential & Commercial	Essential Use Exemptions
Mandatory reduction of water use by 5%	Any use to maintain health and safety of Tonto Hills water customers are exempt from water restrictions including THVFD
Institute Conservation / Drought Stage 3 restrictions and tier 3 rate structure	Construction restrictions apply only to projects not necessary to maintaining the health, safety, and welfare of the public.
Consider implementing fines on water bills	
Require trucked water for construction projects. Construction water use will not be supplied by the THDWID	
Outdoor water use restricted <ul style="list-style-type: none"> - Outdoor water use restricted to twice a week (Sunday and Tuesday) between 8 pm and 6 am - Avoid other outdoor water uses including misters and car washing 	
Fountain shut off	-
Pools may not be filled or refilled with Tonto Hills provided water without evaporation inhibiting material (POOL COVERS).	-

Stage 3 water use restrictions are mandatory.
The THDWID may declare a Stage 4 with further restrictions.

Stage Four - Water Emergency Mandatory (Reduction Goal 10%)	
Residential & Commercial	Essential Use Exemptions
Mandatory reduction of water use by 10%	Any use to maintain health and safety of Tonto Hills water customers are exempt from water restrictions including THVFD
Institute Conservation / Drought Stage 4 restrictions and tier 4 rate structure	Construction restrictions apply only to projects not necessary to maintaining the health, safety, and welfare of the public.
Consider implementing fines on water bills	
Require trucked water for construction projects. Construction water use will not be supplied by the THDWID	
Fountain shut off	
<ul style="list-style-type: none"> •Require Additional Mandatory Water Reduction Measures <ul style="list-style-type: none"> - Turn off fountains - Ban Landscape Irrigation except to trees and shrubs 1 day per week between 8 pm and 6 am - Ban irrigation of turf or ground covers - Ban car washing 	

Stage 4 water use restrictions.
Water demand shall be further reduced by methods determined by THDWID BoD

APPENDIX R

THDWID NEW BUILD/REMODEL WATER CONSIDERATIONS

TONTO HILLS DOMESTIC WATER IMPROVEMENT DISTRICT

MAILING ADDRESS

11228 E. Hohokam Lane
Cave Creek, AZ 85331

PHONE: (480) 595-0128 office

EMAIL: board@tontohillsdwid.org

WEBSITE: www.tontohillsdwid.org

WATER EMERGENCIES

(480) 745-1427

THDWID New Build/Remodel Water Considerations

Tonto Hills Utility Company (THUC) acquired a water allocation of 71 acre-feet per year (AF/yr) from the Central Arizona Water Conservation District (CAWCD) via the Central Arizona Project (CAP) canal and brought it online in March 2004. This allocation was one of the assets purchased by the Tonto Hills Domestic Water Improvement District (THDWID) in December 2010. Currently, the CAP supply is the only feasible long-term source of water for Tonto Hills.

In accordance with our state-required Conservation Plan, the THDWID Board is preparing for unforeseen interruptions in CAP water supply by banking our unused CAP allocation at a Groundwater Savings Facility and obtaining long-term storage credits against which Scottsdale can pump groundwater in lieu of CAP water to temporarily continue meeting our needs, if necessary.

It must be strongly emphasized that our water supply is secure and the likelihood of a shortage is low. We estimate our current supplies could support an average monthly use of about 8,000 gallons per parcel at full build out. The fact remains that our supply is based on an allocation system that does not provide unlimited water to our community. Therefore, it is important to recognize this limitation and that excessive water use by THDWID members can impact the sustainability of our water supply.

To lessen the likelihood of a shortage, the THDWID Board of Directors has adopted the following recommendations and requirements for new build and applicable remodel applicants. Please note that for **all parcels zoned commercial**, THDWID has adopted a policy of ***mandatory Reduced Pressure Principle (RP) Backflow Prevention Assemblies*** to be installed and tested prior to occupancy (see Policies and Procedures).

Following are recommendations:

- **TOILETS:** Toilets should be the high efficiency type that uses 1.6 gallons or less per flush. A family of four can save 14,000 to 25,000 gallons of water per year using these as opposed to the older type of toilets.
- **SHOWERHEADS:** Showerheads should be of the high efficiency type with a flow rate of 2.5 gallons per minute or less. Showering typically accounts for approximately 17% of indoor water use. The high efficiency showerheads can achieve water savings of 25% to 60% over older models.
- **FAUCETS:** Consider using faucets with the “WaterSense” label. Faucets typically account for about 15% of indoor water use. “WaterSense” bathroom sink faucets can reduce water flow by

30% without sacrificing performance. “WaterSense” is an EPA program having partnership agreements with many manufacturers.

- **DISHWASHERS:** Consider installing an “EnergyStar” qualified model. An old style dishwasher can waste about 10 gallons of water per cycle.
- **CLOTHES WASHERS:** Consider installing an “EnergyStar” qualified model. High efficiency washers use 35% to 50% less water and 50% less energy per load. The model should also have a low water factor. A water factor is the number of gallons per cycle per cubic foot that a clothes washer uses. If a washer uses 18 gallons per cycle and has a tub volume of 3.0 cubic feet, the water factor is 6.0. The lower the water factor, the more efficient the washer. Some models have load sensing capability and adjust the amount of water used based on the size of the load.
- **OUTDOOR PIPES:** Tonto Hills experiences freezing weather a few times per year. This can result in burst pipes and many gallons of wasted water. Consider insulating pipes. Use heat tape or thermostatically controlled heat cables to wrap pipes. (Use products approved by Underwriters Laboratories and follow instructions carefully.) Also, seal leaks that allow cold air to enter where pipes are located. Look for air leaks around electrical wiring, dryer vents, and pipes.
- **LANDSCAPING:** Consider landscaping with low-water requirement desert plants. Go to http://www.amwua.org/advanced_search.html for an appropriate desert plant search engine. Turf or grass planting should not exceed 25 square feet. Consider equipping drip systems with rain shut-off devices or soil moisture sensors. Consider decorative rain barrels to catch rain for landscape watering. These barrels are available for around \$100.
- **ON-DEMAND HOT WATER:** A family of four wastes 10,000 to 15,000 gallons of water annually running faucets while waiting for hot water. There are several types of on-demand hot water systems including: recirculating pumps, demand type pump systems, thermo-siphon systems, and point-of-use water heaters. The downsides of these systems are initial costs and on-going energy costs. To minimize ongoing energy costs, insulate all pipes and install a timer to turn the systems on/off tied to showering hours. Another consideration is a tank-less water heater running on propane located near the primary shower or a small capacity 110-volt electric under sink water heater.
- **HUMIDIFIERS:** Many new homes are built with humidifier systems as part the HVAC system. The two types of humidifiers available are evaporative and steam. The model of evaporative humidifier varies depending on the size of the house. (Consider cubic feet measurements if ceilings are high.) These humidifiers can use from 3 gallons per hour (gph) to 6 gph. If a 6-gph humidifier ran constantly, it could use 4,320 gallons in a month. Many factors impact actual usage, but assuming it ran about 6 hours per day; the monthly total would be 1,080 gallons. For each gallon used in humidifying, 5 gallons go down the drain. To ensure the unit runs only when needed, install a digital humidistat. Steam humidifiers use only 0.6 to 1.8 gph with very little

going down the drain. The downside is that they use 11.5 amps vs. less than 1 amp for a large evaporative humidifier.

Following are requirements:

- **SHUT-OFF VALVES:** All THDWID Members who have or request connection to the THDWID's system shall install and maintain a private shut-off valve. The THDWID shall provide a like valve on the THDWID's side of such meter. The THDWID also recommends the installation of one or more pressure reducing valves (PRVs) on the Customer's side of the meter at the Customer's expense to regulate water pressure and prevent over-pressure damage to appliances and other equipment. The THDWID shall not be responsible for the effects of high water pressure on the Customer's side of the meter. The THDWID requires backflow prevention devices.
- **POOL COVERS:** A 600-square-foot pool has approximately 34,000 gallons of water evaporation each year. This figure can vary depending on humidity (low humidity means higher evaporation), air temperature vs. pool temperature (the cooler the air in relation to the pool, the more evaporation), solar exposure, and wind. A pool cover can prevent most of this evaporative water loss. A low-cost pool cover is a solar cover. They look similar to packing material, but have UV inhibitors and a thicker grade of plastic. There is also a variety of vinyl covers. Pool covers come with manual, semi-automatic, or automatic pool cover retraction. As of 2014, a basic cover for a 450-square-foot pool costs about \$80; a storage reel costs about \$160. A high quality insulating pool blanket costs about \$700. A pool cover in Phoenix can reduce energy costs by \$2,000 annually and reduce chemical costs.
- **NEGATIVE EDGE POOLS:** Negative edge pools have higher rates of evaporation than regular pools and standard pool covers are less effective. Negative edge pools are not permitted unless an automatic pool cover designed specifically for this type of pool is built-in as part of the construction.
- **BACKFLOW:** The complete backflow prevention requirements for all members are available in the THDWID Policies and Procedures. The following is a brief summary:

A.A.C. R18-4-215 E1, which states, "A public water system may make installation of a required backflow prevention assembly a condition of service. A user's failure to comply with this requirement shall be sufficient cause for the public water system to terminate water service." The THDWID has adopted a policy requiring installation of backflow prevention assemblies as a condition of initial and continued water service where cross-connections pose a potential threat to the THDWID water system.

As mentioned earlier, the THDWID has adopted a policy of *mandatory Reduced Pressure Principle (RP) Backflow Prevention Assemblies for all parcels in the District zoned commercial* to be installed and tested prior to occupancy (see Policies and Procedures).

The THDWID requires that residences and commercial properties be in compliance with Section P2902.1 of the International Residential Code for One- and Two-Family Dwellings. Section P2902.1 states, “A potable water supply system shall be designed and installed as to prevent contamination from non-potable liquids, solids, or gases being introduced into the potable water supply. Connections shall not be made to a potable water supply in a manner that could contaminate the water supply or provide a cross-connection between the supply and a source of contamination unless an approved backflow prevention device is provided. Cross-connections between an individual water supply and a potable water supply shall be prohibited.”

THDWID also requires pressure vacuum breakers on all hose bibs used to fill water reservoirs, such as horse troughs, etc., to prevent backflow. Backflow prevention devices should be inspected annually.

The following are the recognized types of backflow prevention assemblies that the THDWID requires (see Policies and Procedures for details):

- 1) *Air gap*: The unobstructed vertical distance through free atmosphere between the lowest point of a water supply outlet, pipe, or faucet supplying potable water to a tank, plumbing fixture, or other device and the flood level rim of the tank, plumbing fixture, or other device. An approved air gap shall be at least twice the diameter of the supply pipe or faucet and in no case less than one (1) inch.
- 2) *Reduced pressure principle assembly (“RP”)*: A backflow prevention assembly containing two independently-acting approved check valves together with a hydraulically-operating, mechanically-independent pressure differential relief valve located between the check valves, and at the same time below the first check valve. The assembly shall include properly located test cocks and tightly closing shutoff valves at each end of the assembly.
- 3) *Double check valve assembly (“DC”)*: A backflow prevention assembly composed of two independently-acting, approved check valves, including tightly-closing shutoff valves located at each end of the assembly and fitted with properly located test cocks.
- 4) *Pressure vacuum breaker assembly (“PVB”)*: A backflow prevention assembly containing an independently-operating, loaded check valve and an independently-operating, loaded air inlet valve located on the discharge side of the check valve. The assembly shall be equipped with properly located test cocks and tightly-closing shutoff valves located at each end of the assembly.

APPENDIX R
CODE OF CONDUCT

Code of Conduct for Tonto Hills Domestic Water Improvement District

WHEREAS, the Maricopa County Board of Supervisors has delegated the authority and responsibility to govern the operations of the Tonto Hills Domestic Water Improvement District (THDWID or “the District”) to its Board (“the Board”), and

WHEREAS, the Board is responsible to appoint officers and committee members, and to solicit/involve other volunteers, and

WHEREAS, the Board has the responsibility to set a standard and level of behavior in exercising its authority,

NOW, THEREFORE, BE IT RESOLVED THAT the Board of THDWID hereby adopts the following Code of Conduct that is applicable to all Board members, officers, committee members and other volunteers in order to ensure that they maintain a high standard of conduct while serving in the performance of District business.

The following principles constitute the Code of Conduct:

1. The Board will use its best efforts at all times to make decisions that are consistent with the best interest of the District.
2. No Board or committee member shall receive compensation for serving on behalf of the District, except for expense reimbursements approved by the Board or for specific functions as approved by the Treasurer.
3. No Board or committee member shall solicit or accept, directly or indirectly, any gifts, gratuity, favor, entertainment, loan, or any other thing of monetary value made with the intent of influencing decisions or actions on any official matter, or from a person who is seeking to obtain contractual or other business or financial relations with the District.
4. No promise or anything not approved by the Board shall be made to any contractor, supplier or subcontractor during any negotiations.
5. No contributions will be made to any political parties or political candidates by the District.
6. No Board or committee member who acquires confidential information in the course of exercising or performing his or her official powers or duties may disclose or use such information unless the disclosure or use is required by law or in the course of exercising or performing his or her official powers and duties.
7. Language at Board meetings and other meetings will be professional. It is understood that differences of opinion will exist. Differences should be expressed in a clear and business-like fashion.

8. No Board or committee member shall engage in any writing, publishing or speech making that defames any other member of the Board. Personal attacks against other Board members are prohibited.
9. No Board or committee member serving the community may use his/her position to enhance his/her financial status through the use of certain contractors or suppliers. Any potential conflict of interest must be disclosed to the Board.
10. No Board or committee member will seek to have a contract implemented that has not been approved by the Board.
11. No Board or committee member will interfere with a contractor implementing a contract in progress. All communications with contractors will go through the managing agent or be in accordance with policy.
12. No Board or committee member will interfere with the system of management established by the Board and its designated management company.
13. By virtue of serving on the Board, a member agrees to set an example for all members and follow the rules and regulations of the District.
14. All Board and committee members will be given a copy of this Code of Conduct and will be asked to sign it to signify that they have received it, have read it and agree to abide by it.
15. Members of the Board also agree to adhere to the following Email Guidelines: Email should be used primarily for routine communications (agenda review, meeting date availability, pre-reads, minutes reviews) to obtain general sentiment or information, and emergencies. The regular Board meetings are the venue for Board business, votes, and discussions regarding Board issues. The same Code of Conduct above also applies to email communications.

Ratified on: 27 February 2019

Accepted By THDWID Board Members:

Accepted By THDWID Committee Members:

APPENDIX S

EMERGENCY NOTIFICATION PROCEDURES



MAIL: 11228 E. Hohokam Lane, Cave Creek, AZ 85331
EMAIL: THDWID.board@gmail.com
WEB: www.TontoHillsWater.org
OFFICE PHONE: (480) 595-0128
EMERGENCIES: (480) 745-1427

BOARD: RICK NELSON, Chairman
BILL VICTOR, Secretary
COREY GARRISON, Treasurer
RALPH SPURGIN
KEITH PEIRCE
STAFF: ERICA BOYLE, Clerk
JEFF FRAZEY, Superintendent

EMERGENCY NOTIFICATION PROCEDURES

This document provides additional information related to the Emergency Response Plan given in the Policies and Procedures for the Tonto Hills Domestic Water Improvement District (THDWID). Topics addressed herein include: changing the voice message on the THDWID emergency phone line; sending email blasts to Customers to transmit information about water system conditions; and the current Customer contact list organized by street.

CHANGING MESSAGES ON THE EMERGENCY PHONE LINE

The THDWID phone system is based on a voice-over-internet-protocol (VoIP) network. This network is necessarily attached to the residence that owns the home system, which is that of the current THDWID Superintendent, Jeff Frazey. The network has many advantages over standard landlines, including the ability to accommodate the sending of text and email alerts to multiple recipients, as well as logging voice mails and forwarding calls automatically. However, the voice message given out when the THDWID phones are called can only be changed using the individual physical phones associated with those numbers.

Changing of messages, therefore, must be done at the place where the phones reside. The Superintendent must be contacted to have the voice messages changed. The Emergency Response Plan requires the Secretary to change the voice message on the emergency phone number to provide a summary of the updated situation in the event of an outage. Therefore, the Secretary will coordinate with the Superintendent because the THDWID phone system currently resides with the Superintendent.

To change the voice mail message, the emergency number must be called from the emergency phone and a menu will lead the caller through the steps to change the settings.

SENDING EMAIL BLASTS TO CUSTOMERS

In the event of an outage of water service, email blasts can be sent to all homeowners who have agreed to receive such email and have provided their email addresses to the THDWID. Access to this process is restricted to those having administrative passwords to the THDWID website; however, the procedure excluding that information is provided in the attached series of 11 screen prints with instructions. Message should remind members that, in the event of a drop in water pressure, they should take precautionary steps, including turning off their hot water circulation pumps and water heaters, as well as checking function of their backflow prevention devices.



CUSTOMER CONTACT LIST

For water service outages, the most useful type of Customer contact list is one organized by street. The most recent list is available from the Superintendent. It is important to update this list on a quarterly basis.