



Level 1 Validation Form

WATER SYSTEM NAME: _____ DATE: _____

Instructions: this form is to be used by Certified Validators to document their work. Once completed, a utility should maintain a copy for their records. This form is not required to be submitted to the State. Please be sure the audit is prepared using Version 6 of the Free Water Loss Software.

Part I. Water Supplied Pre-Interview Notes:	
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AWWA Water Audit Input	Input Adjusted (Y/N)	Final Date Validity Grade ("DVG")	Confirmation of Input Derivation	Confirmation of DVG Assignment
1) Volume from Own Sources ("VOS")			Supply meter profile: VOS input data source: Comments: Confirmed input value:	Percent of VOS metered: Signal calibration frequency: Volumetric testing frequency: Volumetric testing method: Percent of VOS tested and/or calibrated: Comments: Confirmed DVG:

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Part I. Water Supplied Continued

AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
2) Volume from Own Sources Error Adjustment ("VOSEA")			Adjustment basis: Net storage change included: Comments: Confirmed input value:	Supply meter read frequency: Supply meter read method: Frequency of data review: Storage level monitoring frequency: Comments: Confirmed DVG:
3) Water Imported ("WI")			Import meter profile: WI data source: Comments: Confirmed input value:	Percent of WI metered: Signal calibration frequency: Volumetric testing frequency: Volumetric testing method: Percent of WI tested and/or calibrated: Comments: Confirmed DVG:

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Part I. Water Supplied Continued

AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
4) Water Imported Error Adjustment ("WIEA")			<p>Adjustment basis:</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>Import meter read frequency:</p> <p>Import meter read method:</p> <p>Frequency of data review:</p> <p>Comments:</p> <p>Confirmed DVG:</p>
5) Water Exported ("WE")			<p>Export meter profile:</p> <p>WE data source:</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>Percent of WE metered:</p> <p>Signal calibration frequency:</p> <p>Volumetric testing frequency:</p> <p>Volumetric testing method:</p> <p>Percent of WE tested and/or calibrated:</p> <p>Comments:</p> <p>Confirmed DVG:</p>

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6) Water Exported Error Adjustment ("WEEA")			<p>Adjustment basis:</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>Export water meter read frequency:</p> <p>Export meter read method:</p> <p>Frequency of data review:</p> <p>Comments:</p> <p>Confirmed DVG:</p>

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<p>Part II. Authorized Consumption Pre-Interview Notes:</p>	
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AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
7) Billed Metered Authorized Consumption ("BMAC")			<p>Customer meters & reads profile:</p> <p>Age profile:</p> <p>Read system:</p> <p>Read frequency:</p> <p>Billing data pro-rated?</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>Percent of customers metered:</p> <p>Small meter testing policy:</p> <p># of small meters/year:</p> <p>Large meter testing policy:</p> <p># of large meters tested/year:</p> <p>Meters replaced/year:</p> <p>Billing data auditing practice:</p> <p>Comments:</p> <p>Confirmed DVG:</p>

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Part II. Authorized Consumption Continued

AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
8) Billed Unmetered Authorized Consumption ("BUAC")			Billed unmetered profile: Input derivation: Comments: Confirmed input value:	Policy for metering exemption: Input derivation: Comments: Confirmed DVG:
9) Unbilled metered Authorized Consumption ("UMAC")			Unbilled metered profile: Input derivation: Comments: Confirmed input value:	Policy for metering exemption: Comments: Confirmed DVG:
10) Unbilled unmetered Authorized Consumption ("UUAC")			Unbilled unmetered profile: Input derivation: Comments: Confirmed input value:	Input derivation: Default of adjusted default applied: Completeness of documentation: Comments: Confirmed DVG:

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Part III. Water Losses	
Pre-Interview Notes:	

AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
11) Systematic Data Handling Error ("SDHE")			Default applied? Input derivation if customized: Comments: Confirmed input value:	Instances and extent of UC documented: Comments: Confirmed DVG:
12) Customer Metering inaccuracies ("CMI")			Input derivation: Comments: Confirmed input value:	Characteristics of meter testing: Characterizations of meter replacement: Comments: Confirmed DVG:
13) Unauthorized Consumption ("UC")			Input derivation: Comments: Confirmed input value:	If custom estimate provided: Characteristic of read collection and billing process: Characteristic of billing process and billing data auditing: Confirmed DVG:

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<p>Part IV. System Data Pre-Interview Notes:</p>	
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AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
14) Length of Mains ("LM")			<p>Input derivation:</p> <p>Hydrant lateral length included:</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>Mapping format:</p> <p>Asset Management database:</p> <p>Map updates & field validation:</p> <p>Comments:</p> <p>Confirmed DVG:</p>
15) Number of Service Connections (Nc")			<p>Input derivation:</p> <p>Basis for database query:</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>GIS updated & field validation:</p> <p>Estimated error of total count within:</p> <p>Comments:</p> <p>Confirmed DVG:</p>

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Part IV. System Data Continued

AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
16) Average Length of Private Customer Service Line ("Lp")			<p>Are customer meters at curb stop/property line?</p> <p>Where are customer meters installed if not at the curb stop?</p> <p>Customer service line derivation:</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>Comments:</p> <p>Confirmed DVG:</p>
17) Average Operating Pressure ("AOP")			<p>Number of zones, general setup:</p> <p>Typical pressure range:</p> <p>Input derivation:</p> <p>Comments:</p> <p>Confirmed input value:</p>	<p>Extent of static pressure data collection</p> <p>Characterization of real-time pressure data collection:</p> <p>Hydraulic model in place?</p> <p>Calibrated?</p> <p>Age of model:</p> <p>Comments:</p> <p>Confirmed DVG:</p>

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Part V. Cost Data Pre-Interview Notes:	
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AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
18) OPTIONAL Total annual operating cost ("TOC")			Input Derivation: Comments: Confirmed input value:	Frequency of internal auditing: Frequency of third-party CPA auditing: Comments: Confirmed DVG:
19) Customer retail unit cost ("CRUC")			Input derivation: Sewer charges volumetric? Sewer charges included? Comments: Confirmed input value:	Characterization of calculation: Comments: Confirmed DVG:

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Part V. Cost Data Continued

AWWA Water Audit Input	Input Adjusted (Y/N)	Final DVG	Confirmation of Input Derivation	Confirmation of DVG Assignment
20) Variable production cost ("VPC")			Supply profile: Direct variable costs included: Secondary costs included: Comments: Confirmed input value:	Characterization of calculation: Comments: Confirmed DVG:

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Part VI. Summary

Final Call Notes:

Total Data Validity Score	Infrastructure Leakage Index (ILI)	Real Losses (gal/conn/day)

Condition of Infrastructure & Description of Water Loss Control Activity

Pipe network age range:

Main breaks/year:

Service breaks/year:

Main and service line replacement program (historical & current):

No current proactive leakage management:

Meter Replacements, smaller meters:

Meter Replacement, larger meters:

GIS and asset management:

Old cast iron main replacements:

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