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**DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI**

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February 23, 2016

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OFFICE OF THE
COUNTY COUNCIL

Honorable Gladys C. Baisa
Chair, Water Resources Committee
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

Dear Chair Baisa:

**SUBJECT: REPLACEMENT WATER AVAILABILITY ORDINANCE CONCEPTUAL
FRAMEWORK (WR-19)**

During previous discussions regarding the Water Availability Ordinance, there has been concern expressed regarding Section 14.12.050 - Director's comments on engineering reports. These are reports relating to water systems built by private entities which are not being turned over to the Department of Water Supply ("DWS"). Questions have been raised regarding the appropriate role of DWS in reviewing these projects.

For the Committee's information, we are submitting three documents that we received from the Hawaii Department of Health, Safe Drinking Water Branch ("SDWB"). The documents are as follows:

1. New Water System Capacity Requirements (**Exhibit 1**)
2. Pre-construction Capacity Evaluation for New Community and New Nontransient Noncommunity Water Systems (**Exhibit 2**)
3. Startup Capacity Evaluation for New Community and New Nontransient Noncommunity Water Systems (**Exhibit 3**)

We would like to point out that the SDWB has an existing program to evaluate adequacy of the private systems which are subject to Section 14.12.050.

We hope that you find this information useful in your deliberations. Should you have any questions, please feel free to contact me at Ext. 7816.

Sincerely,

A handwritten signature in black ink, appearing to read "DT", is written over the word "Sincerely,".

DAVID TAYLOR, P.E.
Director of Water Supply

Attachments
DT:atn
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"By Water All Things Find Life"



HAWAII DEPARTMENT OF HEALTH

NEW WATER SYSTEM CAPACITY REQUIREMENTS

Existing and New Capacity Definitions

"Capacity" means the overall capability of a water system to consistently produce and deliver water meeting all national and state primary drinking water regulations in effect or likely to be in effect when new or modified operations begin. Capacity includes the technical, managerial, and financial capacities of the water system to plan for, achieve, and maintain compliance with applicable national and state primary drinking water regulations.

"Community water system" or "CWS" means a public water system which serves at least fifteen service connections used by year-round residents or regularly serves at least twenty-five year-round residents.

"Financial Capacity" refers to the financial resources of the water system, including an adequate budget, adequate fiscal controls, and credit worthiness.

"Managerial Capacity" refers to the ability of the water system to manage itself, including clear ownership, organization, and communications; and accountability, adequate management, staffing, policies, training, and information management; and effective relationships with customers and regulatory organizations.

"New Systems" includes both community water systems and non-transient non-community water systems being newly constructed as well as systems which do not currently meet the definition of a public water system but which expand their infrastructure and thereby grow to become a community water system or non-transient non-community water system. Systems not currently public water systems and which add additional users and thereby become community water systems or non-transient non-community water systems without constructing any additional infrastructures are not "new systems" for the purposes of this instruction.

"Non-transient, Non-community Water System" or "NTNCWS" means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year.

"Public Water System" means a system which provides water for human consumption, through pipes or other constructed conveyances if the system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least sixty days out of the year. Such term includes (1) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in conjunction with such system. A public water system may be privately or publicly owned or operated. A public water system is a "community water system" or a "non-community water system".

Under Section 1411 of the SDWA, a PWS is subject to regulation unless it is a system which meets all of the following four criteria:

1. Consists of only distribution and storage facilities (does not have any collection and treatment facilities);
2. Obtains all of its water from, but is not owned or operated by, a public water system to which the regulations apply;
3. Does not sell water to any person; and
4. Is not a carrier which conveys passengers in interstate commerce.

In the interest of water conservation, the EPA interpretation of "selling" allows certain property owners to install submeters and bill on the water used, and still not be considered a public water system. The EPA guidance memorandum of December 16, 2003, states the following:

"Determinations of whether billing for water is a "sale" for purposes of Section 1411, and whether systems are "submetering" as that term is used in this policy, should be made by the Primacy Agency."

"In making a determination, the Primacy Agency should consider if the property has certain characteristics, such as a limited distribution system with no known backflow or crossconnection issues; the majority of its plumbing is within a structure instead of underground; and property ownership is a single/individual (or association of property owners, in the case of co-ops or condominiums). Of course, for any system to be excluded under Section 1411, it must receive all of its water from a regulated public water system."

"Substantially modified" means any physical modification to the source, storage, collection, treatment, or distribution facilities of the public water system which is determined by the director to have an actual or potential significant impact on the quality of the water delivered to users or the public water system; and any modification which will cause an existing system, which is not a public water system before such modification, to become a public water system.

"System modifications" are modifications to existing public water systems such as obtaining alternate sources of water, start up of a new treatment plant to supplement or replace the current water treatment plant, changes to the water treatment process, or expansion of the water system's infrastructure to accommodate population growth. A system modification does not affect the system's status as an existing CWS or NTNCWS.

"Technical Capacity" refers to the physical infrastructure of the water system, including but not limited to the adequacy of the water source(s), treatment, storage, and distribution systems; and the ability of the water system personnel to adequately operate and maintain and to otherwise implement technical knowledge.

Evaluating Whether a New Subdivision is Subject to the Capacity Regulations

The SDWA Amendments of 1996 and HAR 11-20 require that all new community water systems and new non-transient non-community water systems, must demonstrate adequate technical, managerial, and financial capacity.

The DOH director also has the discretion to require capacity for a transient non-community water system or existing water system with problems. HAR 11-20-30(e) states the following:

"For approval of a new transient non-community public water system or substantial modification of an existing public water system, which has failed to comply with state primary drinking water regulations or has significant problems noted by sanitary surveys or inspections, required under subsection (a), the proposed or existing supplier of water may, at the director's discretion, also be required to demonstrate to the director's satisfaction that he system has adequate capacity as described in section 11-20-29.5."

HAR 11-20-29.5 refers to capacity demonstration and evaluation.

The following are examples of how the definitions are interpreted:

1. A proposed 14 lot subdivision will be served by an existing public water system and a new distribution system with a water meter for each lot will be installed. Water will be sold to each homeowner. In this case, a capacity submittal is not required.
2. A proposed 14 lot subdivision will be owned by a non-profit group (homeowners association) and will be served by an existing public water system. The developer will install a new distribution system with a master meter and each homeowner's lot will be metered. The homeowners association will sell the water at cost to each homeowner in the subdivision. A capacity submittal will be required.
3. An existing public water system was bought by a developer. The developer will drill new wells, install new storage tanks, and install a new distribution system; continue to provide water to the existing customers; and build a new subdivision (50 lots). A capacity submittal will not be required.

4. A proposed 12 lot subdivision could not obtain water from an existing public water system and plans are to convert existing irrigation wells for drinking water, install water storage tanks, and install new a distribution system. A capacity submittal is required.
5. A community was taking water from an irrigation system with a tunnel source for drinking water. The irrigation system was installed during the early 1900s for sugar cane production and had grown to where the irrigation system now serves 75 people and has 35 service connections. The water system does not have storage facilities and has approximately 2 miles of above ground 2 1/2 inch galvanized iron and polyethylene pipe. The water is not disinfected. The infrastructure was in place before the capacity regulations were required to be implemented (October 1, 1999). The SDWB declared the irrigation system a public water system in 2005 and a capacity submittal was not required.

Documents Required to Obtain DOH Approval to Construct the Water System When Capacity is Required

The developer will need to submit the following to obtain DOH approval to construct a subdivision subject to the capacity regulations:

1. An engineering report prepared by a licensed professional engineer is required to obtain approval to use a new or existing raw water source(s) for drinking water purposes.
2. The construction plans for the proposed water system infrastructure. The plans will be reviewed by the SDWB and approved by the EMD Chief.
3. A commitment by the developer on how the pre-construction technical, managerial, and financial capacity requirements will be met [Enclosure (1)].

When the three submittals are deemed satisfactory, a letter will be sent to the developer approving construction of the water system. The SDWB representative on the island must receive a copy of the approval letter.

Engineering Report

The engineering report will need to conform to the guidelines promulgated by the SDWB. If a regulated contaminate at significant levels is noted in the water, the engineering report should address how the contaminant will be removed using the best available technology (BAT).

After a satisfactory review of the engineering report, the State drinking water regulations require the SDWB to withhold final approval of the water source(s) for drinking water use until the water system infrastructure is built and approval to operate the water system is granted.

The interagency responses received on the engineering report should be forwarded to the licensed professional engineer who prepared the report for resolution. The engineer is expected to resolve any issues raised with the originator of the comments and provide a copy of the response to the SDWB.

The developer will sometimes use a slightly brackish water source and use reverse osmosis (RO) treatment to remove the chlorides in the water. The RO plant is to improve the aesthetics of the water, and therefore, the RO vendor is not required to document the membrane's efficiency in removing regulated contaminants.

On Maui, the developer will need to provide confirmation to the County Planning Department that the project has the drinking water before approval for the project can be obtained. If the engineering report is satisfactory, the SDWB can provide to the developer, on request, a confirmation that the water source(s) can be approved for drinking water use.

Water System Infrastructure Construction Plans

The water system should be constructed to the applicable island's County water system standards. Note that constructing the water system to County Standards is not a State regulatory requirement and we can only ask the developer to do so.

The construction plans shall require disinfection, flushing, and microbiological testing after construction of the new water system. As part of the capacity submittal, the developer will need to provide documentation that the post construction microbiological testing was satisfactory.

The approval for the construction plans should not be released until the engineering report and pre-construction capacity submittal are both satisfactory to prevent the developer starting construction before the engineering report and capacity submittals are deemed satisfactory.

A professional engineer is required to monitor construction and after construction is complete, provide a certification that the water system was constructed in accordance with the approved construction plans. The engineer's certification is part of the start-up capacity approval submittal.

Copies of the as-built record construction drawings are required for the SDWB.

Pre-Construction Capacity Evaluation for New Community and New Non-Transient Non-Community Water Systems [Enclosure (1)]

The pre-construction technical, managerial, and financial capacity submittal includes obtaining a commitment in writing from the developer that the new water system will be owned by a non-profit organization, that a professional water system operations company will be contracted to operate the water system, and that a professional

financial management company will be contracted to assist in the financial management of the water system.

The water system can be owned by a for-profit organization if the organization will have the financial means to file PUC applications for each rate change, change in monthly fees paid by customers, and plans to use funds to expand the system. Each PUC application for rate or fee structure change needs to be filed by a law firm and the estimated filing cost is approximately \$100,000. A small water system usually will not have the customer base to afford the legal fees. The exceptions are the high-end subdivisions.

The PUC will not regulate a utility (public water system) owned by a non-profit organization.

There are three documents that show up in the capacity submittals:

- Subdivision Declaration of Covenants, Conditions, and Restrictions (CC&R) or sometimes called the Declaration of Covenants. This document is filed with the State Land Court System.
- Homeowners Association Articles of Incorporation. This document is filed with the Department of Commerce and Consumer Affairs as a non-profit organization.
- Homeowners Association By-Laws. This document is not filed with any agency but is kept in the Association files.

Technical Capacity – refers to the physical infrastructure of the water system, including but not limited to the adequacy of the water source(s), treatment, storage, and distribution systems; and the ability of the water system personnel to adequately operate and maintain and to otherwise implement technical knowledge.

1. The developer will need to commit that the homeowners association will contract a professional water system operations company to operate the new water system. The water system operations company will provide the certified operators to operate and maintain the new water system.

The draft subdivision CC&R and the draft homeowners association By-Laws must contain a requirement that the association will contract a professional water system operations company to operate and maintain the new water system.

2. The water system should provide sufficient water to meet the applicable island's County water standards and should meet the daily and peak water usage demands. If the system is unable to meet the applicable island's County standards, the draft subdivision CC&R should inform the buyers of the water system limitations.

3. The water system has sufficient water for the future, based on a five-year projection or if there is insufficient water, the draft CC&R shall state the water system limitations.
4. The DOH approval of the construction plans for the water system provides the assurance that the infrastructure design will be satisfactory.

Managerial Capacity – refers to the ability of the water system to manage itself, including clear ownership, organization and communications; and accountability, adequate management, staffing, policies, training, and information management; and effective relationships with customers and regulatory organizations.

1. The capacity requirements are based on a homeowners association owning the water system. The developer is expected to transfer all of the water system assets (land, easements, infrastructure and water rights, if the developer does not own the water sources) to the homeowners association at no cost. The intent to transfer the water system infrastructure to the homeowners association should be included in the subdivision CC&R.
2. The draft subdivision CC&R must state that all buyers must belong to the homeowners association to establish the non-profit organization.
3. The professional water system operations company is expected to manage the new water system.

Financial Capacity – refers to the financial resources of the water system, including an adequate budget, adequate fiscal controls, and credit worthiness.

1. The developer must commit that the homeowners association will contract a financial management company to do the billing for the water system, collect the money owed, pay the bills, and assist the homeowners association in financial matters. The contract should require the financial management company to provide the following assistance:
 - Provide an annual financial statement,
 - Provide periodic forecasts to the homeowners association, as to whether the water system has adequate income to fund operation and maintenance,
 - Provide periodic forecasts on whether adequate funds for an emergency repair account are available, and
 - Provide periodic forecasts on whether adequate funds will be available when major components require replacement at the end of service life.

The financial forecasts will need revision as interest rates, inflation rates, and energy costs change, and the association's board will need to reset the homeowner's fees and the water rates as required.

The draft subdivision's CC&R and the draft homeowners association By-Laws for should contain a requirement that the association will contract a financial management company to assist in financial matters.

2. The financial capacity submittal must include a 5-year or 10-year business plan specifying in detail, how the water system will generate the income needed to operate the water system. The business plan should include the following:
 - Sources of income for the water system. The income must be sufficient to pay for the cost of operating and maintaining the water system. Most developers opt to generate income by having each homeowner pay a meter hookup fee and a monthly fee, in addition to charges for the water used. To insure that the business plan remains viable even if property sales are slow, we have been asking developers to pay the monthly fees for the unsold developed property.
 - A realistic cost to operate and maintain the water system. The professional water system operations company will provide to the developer, the estimated cost to operate and maintain the water system, perform the compliance monitoring (includes laboratory analyses charges), and submit the required reports.
 - An emergency repair account. The business plan should include an emergency repair account to repair damages from natural disasters, accidents, or for unforeseen problems such as a well pump failing prematurely. The repair account should be fully funded when the water system is approved for operation. Some developers commit to provide the money for the emergency repair account, others provide money for the emergency repair account and the water system will repay the developer over a set period of time. Insurance may recover some of the cost to repair damages from natural disasters or accidents, but the insurance payments may not be immediately available when needed.
 - An account to replace major components at the end of service life. The business plan should insure that the monthly payments into the account are sufficient to fully fund replacement of the major components at the end of the service life. If insufficient funds are available to replace the major components when the projected end of service life is reached, the developer will need to provide supplemental funding to make up the short-fall before the water system begins operation.

3. The developer is required to provide a copy of credit reports, bank statements showing that the developer is credit worthy, or other documentation on the financial health of the developer. Some developers have opted to provide a construction bond since Counties are now requiring a construction bond to guarantee that funds will be available to complete the project.

Startup Capacity Evaluation for New Community and New Non-Transient Non-Community Water Systems [Enclosure (2)]

The developer is required to formally file the subdivision CC&R with the State Land Court System. The homeowners association By-Laws are written by the developer for the association, and the By-Laws must state that contracts with the water system operator and the financial management company are required (the association can later enter into contracts with companies other than those selected by the developer).

Technical Capacity

1. The licensed professional engineer must provide a certification that the water system has been constructed in accordance with the DOH approved plans. A copy of the record drawing of the as-built water system is also required.
2. A line diagram of the completed water system showing the elevation of major components, the reservoir capacities, pumping capacities of system pumps, the distribution system, and all major valves in the system, is required.
3. The water system must have a security plan (the plan should include: fences, locked gates, locked access hatches and key valves, and who to report security problems).
4. The water system must have standard operating procedures for the operators. If the water system has chlorine in-line monitoring capability, we have been requiring an automatic operator notification system to notify the operator of a problem with the disinfection system.
5. Provide implementation plans for the Phase I, II, and V, and the Lead and Copper Rule.
6. Provide documentation that the post-construction disinfection is satisfactory. The operating procedures should require disinfection, flushing and microbiological testing after repairs or construction.

We are also requiring that a written microbiological monitoring plan be provided, which is a HAR 11-20 requirement. The plan must be approved by the SDWB island representative.

After the contractor disinfects, flushes, and verifies through microbiological testing that the infrastructure is ready for use and before we grant approval to operate the system, we are allowing the water system operator to maintain a chlorine level (for example, 0.2 ppm to 1.0 ppm) in the distribution system. The developer will need to post the construction area that the water system is under construction and that the water is not safe to drink.

7. The water system must have a preventive maintenance program.
8. The water system must have a cross-connection and backflow prevention program.
9. A copy of the signed contract between the owner (or owner's representative, usually the developer, before the association is formed) and a professional water systems operations company is required.

Managerial Capacity

1. Provide the names of the certified primary and backup water system distribution operators and water treatment operators, if treatment is required.
2. Provide an organizational chart and information on key personnel.
3. The water system operations company must have procedures to notify customers on short notice (e.g., boil water notice).
4. The water system must have an emergency response plan.
5. The water system must have a policy or operating procedure that the DOH will be kept informed of proposed system modifications that could affect the DOH approval of the water system.
6. The water system must have a policy or operating procedures to keep the DOH informed of monitoring problems, violations, or problems that could affect the delivery of drinking water.
7. The water system shall have procedures for filing, record keeping and tracking compliance to regulatory requirements.
8. The water system shall have a refresher training program including safety training on hazards applicable to the worker's job.
9. The water system has a booklet or other form of communication to inform the customer of both the customer and the water system's responsibilities.

10. The water system has a policy to notify water system customers of water quality problems in a timely manner.

Financial Capacity

1. The five-year or ten-year business plan with revenue figures and water system operating expenses must be submitted. The water system must have the income to fully operate and maintain the water system.
2. The reserve fund for emergencies must be fully funded.
3. The fund for replacement of major components at the end of life is established.
4. A copy of the signed contract between the owner (or owner's representative, usually the developer, before the association is formed) and a financial management company is required.

Sanitary Survey

A sanitary survey of the new water system is required to establish that the water system is built per approved plan. All deficiencies noted must be corrected before approval to operate the new water system is granted.

DOH Approval to Operate the New Water System

1. The DOH approval to operate the new water system can be granted after the following:
 - The startup technical, managerial, and financial capacity submittals were evaluated as satisfactory, the CC&R was filed with the Land Court System, and the water system financial accounts were established;
 - The signed contracts with the professional water system operations company and the financial management company are provided;
 - The professional engineer has provided the written certification that the water system has been constructed in accordance with the DOH approved plans; and
 - A sanitary survey was conducted and all deficiencies noted were corrected.
2. The DOH approval to use the raw water source for drinking water can be processed concurrently with the DOH approval to operate the new water system.

After approval to operate the water system is granted, the water system operator will drain the distribution system and refill the system with chlorinated water at levels that the water system will normally maintain during operation.

**PRE-CONSTRUCTION CAPACITY EVALUATION FOR NEW
COMMUNITY AND NEW NONTRANSIENT NONCOMMUNITY WATER
SYSTEMS (REV. January 2012)**

Proposed Name of Water System

Date

Signature of Person Approving the
Information Submitted

1. DIRECTIONS

**A. A SATISFACTORY PRE-CONSTRUCTION CAPACITY EVALUATION IS
MANDATORY TO OBTAIN APPROVAL TO START CONSTRUCTION
OF A NEW WATER SYSTEM.**

- (1) The pre-construction capacity evaluation is based on attributes from the Hawaii Administrative Rules, Title 11, Chapter 20, Rules Relating to Public Water Systems; Section 29.5, Capacity demonstration and evaluation.
- (2) This capacity evaluation is based on the assumption that the owner/developer will build the water system and turn over ownership of the water system and all of its assets to the homeowners association, to another entity, or retain ownership. In any case, the owner of the water system will in turn: (1) contract a water system operations company to manage and operate the water system, and (2) contract a financial management company to assist in the financial management of the water system.

If the owner/developer, homeowners association, or other entity that owns the water system, will manage and operate the water system without contracting professional assistance, then the capacity evaluation procedure will need to be modified on a case by case basis.

2. TECHNICAL CAPACITY EVALUATION

- A. Technical capacity refers to the physical infrastructure of the water system, including but not limited to the adequacy of the water source(s), treatment, storage, and distribution systems; and the ability of system personnel to adequately operate and maintain the system and to otherwise implement technical knowledge.

Pre-construction technical capacity is demonstrated by the following attributes:

(1) CLEAR SYSTEM DESCRIPTION

- b. The water system will be constructed to engineering plans and specifications prepared by a licensed professional engineer and approved by the DOH. The engineering plans and specifications include, but are not limited to, the water sources and infrastructure facilities such as the piping, pumps, treatment facility, and storage tanks, and the interconnection with another water system, if any.

Pre-construction Requirement. The construction plans and specifications for the new water system must be reviewed and approved by the DOH.

- b. The water system construction should meet the applicable island's County Water System construction and material standards.

Pre-construction Requirement. The construction plans for the water system should specify construction and materials that meet the applicable island's County Water System standards and the National Sanitation Foundation (NSF) standards, as applicable. The construction plans must be reviewed and approved by the DOH.

- c. A licensed professional engineer shall be assigned to monitor construction and provide a post construction certification that the water system infrastructure has been constructed in accordance with the approved engineering plans and specifications. After construction, the licensed professional engineer's certification and a copy of the record drawings of the as-built water system shall be provided to the DOH.

Pre-construction Requirement. The licensed professional engineer responsible to monitor construction and provide the required post construction certification should be identified to the SDWB. The engineer's company, company address, and telephone number should also be provided.

For the startup capacity evaluation, the engineer's

certification that the system has been constructed in accordance with the DOH approved plans and a copy of the record drawings of the as-built water system are required.

(2) ADEQUATE SOURCE(S) OF WATER

- a. The water source(s) provides sufficient water (gallons per day) based on the applicable island's County Water System standards and should meet the average daily and the peak water usage demands. If sufficient water is not available to meet the County water usage standards, the owner/developer will need to commit that the water limitations per meter or household shall be specified in the Declaration of Protective Covenants, Conditions and Restrictions (CC&R) for the subdivision or project, to formally inform all prospective buyers of the water supply limitations.

Pre-construction Requirement. Provide the well pump capacity (GPM) authorized by the Department of Land and Natural Resources (DL&NR), Commission On Water Resource Management's pump installation permit. Provide also, the number of service connections (or water meters) for the subdivision or project, and calculations that demonstrate adequate availability of water to all lots/units. If insufficient water is available, the owner/developer has provided a written commitment to inform prospective buyers of the water limitations for each service connection (or meter), via the CC&R.

For the start-up capacity evaluation, if insufficient water is available, a copy of the CC&R recorded in the Bureau of Conveyances of the State of Hawaii which stipulated the water limitations is required.

- b. The raw water source for the water system must be approved by the DOH for drinking water use. Submit the engineering report for water source approval as required by Title 11, Chapter 20, Section 29 of the Hawaii Administrative Rules. If the water source is satisfactory, DOH approval of the water source for drinking water use will be granted concurrently with the DOH's approval to start-up the water system [See Enclosure (2), "Start-up Capacity Evaluation for New Community and New Nontransient Noncommunity Water Systems"].

Pre-construction Requirement. The engineering report to obtain DOH approval to use the raw water source for drinking water use must be reviewed and evaluated as satisfactory (including satisfactory resolution of interagency comments by the consulting engineer submitting the engineering report).

- c. The water source(s) or watershed(s) is adequately protected based on a review of existing and potential contamination hazards. A description of how a protective area will be maintained around the source(s) or watershed should also be provided.

This attribute is evaluated in the engineering report for obtaining approval of the water source for drinking water use. The engineering report must be evaluated as satisfactory to begin construction of the water system.

- d. The water system has sufficient water for the future, based on the average and peak water needs of the subdivision and the CWRM authorized pumping rate from each source or the CC&R shall stipulate water limitations. A five-year or more projected growth study shall be submitted.

Pre-Construction Requirement. The five-year growth projection for average and peak water usage is satisfactory or the owner/developer committed to stipulate the water limitations in the CC&R.

For the start-up capacity evaluation, if the County Water System Standards for water service will not be met, a copy of the CC&R recorded in the Bureau of Conveyances of the State of Hawaii which stipulated the water limitations, is required.

(3) OPERATION OF THE WATER SYSTEM

- a. The water system shall require disinfection, flushing, and microbiological testing of the newly constructed water system. The water system's operating procedures shall also require disinfection and post-disinfection microbiological testing of areas affected by repairs or modification during operation of the water system.

Pre-construction Requirement. The construction plans

shall require disinfection, flushing, and microbiological testing of the water system after construction.

After satisfactory post-construction microbiological testing, the water system may retain a chlorine residual in the distribution system, provided appropriate signs, e.g., "the water system is under construction and the water is not drinkable", are posted.

3. MANAGERIAL CAPACITY EVALUATION

- A. Managerial capacity refers to the ability of the water system to manage itself, including clear ownership, organization, and communications; and accountability, adequate management, staffing, policies, training, and information management; and effective relationships with customers and regulatory agencies.

Pre-construction managerial capacity is demonstrated by the following selected attributes:

(1) CLEAR IDENTIFICATION OF WATER SYSTEM OWNERSHIP

- a. Provide the name of the water system's legal owner, and the owner's address, telephone number and fax number. If the legal owner will subsequently transfer the water system ownership to the homeowners association or another entity, then the CC&R or a notarized document should so state.

Pre-construction Requirement. Submit the information requested and provide the owner/developer's written commitment that the CC&R will stipulate that ownership of the land, easements, and water system infrastructure, will be subsequently transferred to the homeowners association or another non-profit entity.

For the startup capacity review, if ownership of the water system was transferred to the homeowners association or another non-profit entity, a copy of the CC&R that stipulated the transfer of the land, easements, and water system infrastructure, recorded in the Bureau of Conveyances of the State of Hawaii is required.

- b. The owner/developer owns the water source(s) and the land the infrastructure is to be built on, or has obtained leases, easements, or right of use of the property and access

agreements. If the owner/developer will not retain ownership of the water system sources, real estate, and its physical assets, but will transfer ownership to the homeowners association or another non-profit entity, then the CC&R or a notarized document should so state.

Pre-construction Requirement. Submit the information on who owns the water sources and the real estate the water system infrastructure will be built on. Additionally, if ownership of the water sources, real estate, and infrastructure will be subsequently transferred to the homeowners association or another non-profit entity, the CC&R should stipulate the owner/developer's commitment.

For the startup capacity evaluation, if ownership of the water source(s), real estate, and the water system infrastructure was transferred, a copy of the CC&R stipulating the transfer, recorded in the Bureau of Conveyances of the State of Hawaii is required.

(2) QUALIFIED MANAGEMENT

- a. Since the water system manager is responsible for policy decisions and compliance with Federal and State drinking water regulations, the water system manager must be qualified to manage the public water system through training and experience. The owner/developer will need to stipulate that a professional water system operations company will be contracted to manage and operate the water system in the homeowners association by-laws and in the CC&R.

Pre-construction Requirement. The owner/developer must commit that the homeowners association by-laws and the CC&R for the project will stipulate that a water system operations company will manage the water system and the company will provide certified distribution system operators and/or water treatment operators if required.

For the startup capacity evaluation, a copy of the signed contractual agreement between the water system owner and the water system operations company and a copy of the homeowners association by-laws and the CC&R recorded in the Bureau of Conveyances of the State of Hawaii, are required.

(3) ADEQUATE INTERNAL POLICIES

- a. Proposed modifications to the water system, which could affect the DOH's approval of the water system, must be brought to the attention of the water system manager for review and referral to the DOH as warranted.

Pre-construction Requirement. The construction plans or other document shall require the contractor to notify the professional engineer monitoring construction of modifications that arise during construction which could affect the DOH's approval of the plans.

For the startup capacity evaluation, the water system shall have a policy or operating procedure that requires the water system manager to review all system modifications and refer significant system modifications that could affect the DOH's approval of the water system to the DOH as required by HAR 11-20. The water system's policy or operating procedure must be evaluated as satisfactory.

4. FINANCIAL CAPACITY EVALUATION

- A. Financial capacity refers to the financial resources of the water system, including an adequate budget, adequate fiscal controls and credit worthiness.

Pre-construction financial capacity is demonstrated by the following selected attributes:

Please identify documents considered business sensitive and annotate that the documents are the property of the water system. The State will return the documents within 30 days of completing the review.

(1) REVENUE SUFFICIENCY

- a. The water system has a five-year or ten-year business plan or other projection which indicates sufficient revenue to cover its annual operating and maintenance expenses and repayment of loans, if any. The projected interest and inflation rates used shall be specified.

Pre-construction Requirement. The five-year or ten-year business plan with projected revenues and the projected

annual operating and maintenance expenses of the water system must be evaluated as satisfactory. A projected detailed breakdown of the income sources and the operating and maintenance cost items, such as utilities, chemicals, repairs, water testing, insurance, major equipment emergency repairs and replacement, management and operator services, and financial services, are to be included.

The projected income should show in detail how the water systems funds are generated and that the funds will adequately cover operation and maintenance of the water system. The detailed cost breakdown to operate and maintain the water system should be provided by the professional water system operations company that will be contracted to operate the system.

The business plan must be evaluated as satisfactory.

For the startup capacity evaluation, the business plan shall be evaluated as satisfactory and the CC&Rs and the association by-laws shall have provisions that the association Board of Directors (or equivalent) shall have the ability to raise fees, adjust the water rates, require a special assessment, or levy service charges, etc., to ensure adequate income is generated to maintain a viable water system. The contracted financial management company shall be required to provide to the following to the association Board of Directors:

- Periodic recommendations on revising the fees, adjusting the water rates, or other actions necessary to generate sufficient funds to operate and maintain a viable water system. The changes in energy costs, interest rates, and inflation rates dictate the need for the periodic financial reviews.
 - At a minimum, a yearly financial profit and loss statement for the water system operation.
- b. The water system has reserve accounts for major component emergency repairs and for planned replacement of major components at the end of service life. The reserve accounts should have sufficient detail, including a listing of the major components, the construction estimate to purchase and install the components, the estimated service

life of the components, and the projected replacement cost of the component at the end of service life. The interest and inflation rates used to obtain the projected replacement cost at end of service life should also be identified.

Pre-construction Requirements. The major component emergency repair and the planned replacement of major components reserve accounts at end of service life including income and expenses, must be evaluated as satisfactory.

The projected income should show in detail how the water system funds are generated and that the funds adequately cover the following:

- A major component emergency repair account for repairs from damage due to acts of nature and accidents, and to repair/replace major components that unexpectedly fail. The account shall identify the major components covered and the projected costs to replace/repair the components.
- An account to replace major components at the end of expected service life. The account shall identify the major components and the projected cost to replace the components at the end of service life.

For the startup capacity evaluation, the business plan shall be evaluated as satisfactory and the CC&Rs and the association by-laws shall have provisions that the association Board of Directors (or equivalent) shall have the ability to raise fees, adjust the water rates, require a special assessment, or levy service charges, etc., to ensure adequate income is generated to maintain a viable water system. The contracted financial management company shall be required to provide to the following to the association Board of Directors:

- Periodic recommendations on revising the fees, adjusting the water rates, or other actions necessary to generate sufficient funds to operate and maintain a viable water system. The changes in energy costs, interest rates, and inflation rates dictate the
- Periodic reviews on whether the major component emergency repair and replacement of major need for

the periodic financial reviews. components at the end of service life accounts will have sufficient funds since changing energy costs, interest rates, and inflation rates, all affect the viability of the accounts.

(2) FINANCIAL MANAGEMENT

- a. The water system shall have a financial organization with the necessary staff for billing customers, collecting payments, paying water system expenses, preparing budgets and providing annual financial reports to the owner.

Pre-construction Requirements. Provide the owner/developer's commitment that the homeowners association by-laws and CC&R will stipulate that a financial management company will be contracted to provide or assist the board with the financial services. The assistance includes performing the billing functions, collection of payments, paying the water system bills, and maintaining financial records.

For the startup capacity evaluation, the following documents are required: (1) a signed copy of the contractual agreement between the water system owner and the financial management company, and (2) a copy of the Homeowners Association By-Laws and the CC&R recorded in the Bureau of Conveyances of the State of Hawaii. The proposed financial organization's responsibilities must be identified.

(3) CREDIT WORTHINESS

- a. The water system owner/developer is financially healthy and credit worthy.

Pre-construction Requirement. Provide a copy of credit reports or other documentation available on the financial health of the water system's owner/developer or provide a construction bond for the project.

**STARTUP CAPACITY EVALUATION FOR NEW COMMUNITY
AND NEW NONTRANSIENT NONCOMMUNITY WATER SYSTEMS
(REV. January 2012)**

Proposed Name of Water System

Date

Signature of Person Approving the
Information Submitted

1. DIRECTIONS

**A. A SATISFACTORY STARTUP CAPACITY EVALUATION IS
MANDATORY BEFORE APPROVAL TO OPERATE THE NEW PUBLIC
WATER SYSTEM CAN BE PROVIDED.**

- (1) This startup capacity evaluation is based on the capacity attributes in the Hawaii Administrative Rules, Title 11, Chapter 20, Rules Relating To Public Water Systems; Section 29.5, Capacity demonstration and evaluation.
- (2) This start-up capacity evaluation is based on the assumption that the owner/developer will build the water system and turn over ownership of the water system and all of its assets to the homeowners association, to another entity, or retain ownership. In any case, the owner of the water system will in turn: (1) contract a water system operations company to manage and operate the water system, and (2) contract a financial management company to assist in the financial management of the water system.
- (3) If the owner/developer, homeowners association, or other entity that owns the water system, will manage and operate the water system without contracting professional assistance, then the capacity evaluation procedure will need to be modified on a case by case basis.

2. TECHNICAL CAPACITY EVALUATION

- A.** Technical capacity refers to the physical infrastructure of the water system, including but not limited to the adequacy of the water source(s), treatment, storage, and distribution systems; and the ability of system personnel to adequately operate and maintain the system and to otherwise implement technical knowledge.

Technical capacity is demonstrated by the following attributes:

(1) CLEAR SYSTEM DESCRIPTION

- a. The water system will be constructed to engineering plans and specifications prepared by a licensed professional engineer and approved by the DOH. The engineering plans and specifications include but are not limited to, the water sources and infrastructure facilities such as the piping, pumps, treatment facility, and storage tanks, and the interconnection with another water system, if any.

This attribute was evaluated as satisfactory to begin construction of the water system as part of the pre-construction capacity evaluation.

- b. The water system construction should meet the applicable island's County water system construction and materials standards.

This attribute was evaluated as satisfactory to begin construction of the water system as part of the pre-construction capacity evaluation.

- c. A licensed professional engineer shall be assigned to monitor construction and provide a post construction certification that the water system infrastructure has been constructed in accordance with the DOH approved engineering plans and specifications. After construction, the licensed professional engineer's certification and a copy of the record drawings of the as-built water system shall be provided to the DOH.

The engineer assignment was provided prior to start of construction of the water system as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. Provide the licensed professional engineer's certification that the water system has been constructed in accordance with the DOH approved plans and specifications. Provide also a copy of the record drawings of the as-built water system.

- d. Provide a line diagram of the as-built water system including information on the elevation of major components, reservoir capacities, pumping capacities (gpm) of the system pumps, the distribution system layout with transmission line sizes and major valves, pressure reducing stations, treatment facility, booster pumping stations and, if applicable, service zones.

Startup Capacity Evaluation. Provide a copy of the line diagram with the information as specified above to the water system operator and the SDWB.

- e. Critical areas of the water system where vandals could affect the production and storage of safe drinking water, such as the water source(s), control valves, pumps, disinfection system, and storage tanks should be protected from vandalism.

Startup Capacity Evaluation. Indicate how areas of the water system which could affect the production of safe drinking water are protected from vandalism.

(2) ADEQUATE SOURCE(S) OF WATER

- a. The water source(s) provides sufficient water (gallons per day) based on the applicable island's County Water System Standards and should meet the average daily and the peak water usage demands. If sufficient water is not available to meet the County water usage standards, the owner/developer will need to commit that the water limitations per meter or household shall be specified in the Declaration of Protective Covenants, Conditions and Restrictions (CC&R) for the subdivision or project. The CC&R will formally inform all prospective buyers of the water supply limitations.

The water system has an adequate water supply or the owner/developer has committed to stipulate that water limitations will be stated in the CC&R, prior to beginning construction of the water system as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. If water limitations to each service connection are necessary, provide a copy of the

CC&R recorded in the Bureau of Conveyances of the State of Hawaii, which stipulated the water limitations to the buyer.

- b. The raw water source for the water system must be DOH approved for drinking water use. Submit the engineering report for water source approval as required by Title 11, Chapter 20, Section 29 of the Hawaii Administrative Rules. If the engineering report evaluation is deemed satisfactory, the water source can be approved for drinking water use concurrently with the DOH's approval to start-up the water system.

The engineering report was evaluated as satisfactory to begin construction of the water system as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. The DOH approval for using the new water source for drinking water is pending.

- c. The water source(s) or watershed(s) is adequately protected based on a review of existing and potential contamination hazards. A description of how a protective area will be maintained around the source(s) or watershed should be provided.

The engineering report submitted for approval of a new water source was evaluated as satisfactory as part of the pre-construction capacity evaluation.

- d. The water system has sufficient water for the future, based on the average and peak water needs of the subdivision and the Commission on Water Resource Management (CWRM) authorized pumping rate from each source, or the CC&R shall stipulate water limitations. A five-year or more projected growth rate study shall be submitted.

Prior to the start of construction, as part of the pre-construction capacity evaluation, the water available for the five-year growth projection for water usage was evaluated as satisfactory or the owner/developer committed to stipulate the water limitations in the CC&R.

Startup Capacity Evaluation. If the County Water System Standards for water service will not be met, provide a copy

of the CC&R recorded in the Bureau of Conveyances of the State of Hawaii, which stipulated the water limitations.

(3) OPERATION OF THE WATER SYSTEM

- a. Operating procedures are available for the water treatment plant operators and/or distribution system operators. The operating procedures should include a description of the water system operation, the capacity of the storage tanks, the water level set points to trigger the pump on-off signals, operation of the treatment facility, and the disinfectant levels that must be maintained in the water system.

Startup Capacity Evaluation. Provide a copy of the water system operating procedures.

- b. The water system's water quality microbiological monitoring plan has been reviewed and is satisfactory to the SDWB.

Startup Capacity Evaluation. The water system's microbiological monitoring plan establishing the sample locations for the system must be reviewed and approved by the SDWB's representative on the island. Provide a copy of the water system's microbiological monitoring plan to the SDWB.

- c. The water system's implementation plans for the Phase II and V Rules, and the Lead and Copper Rule were reviewed and are satisfactory.

Startup Capacity Evaluation. Provide a copy of the water system's Phase II and V, and the Lead and Copper Rule implementation plans.

- d. The water system shall require disinfection, flushing, and microbiological testing of the newly constructed water system. The water system's operating procedures shall also require disinfection and post-disinfection microbiological testing of areas affected by repairs or modification during operation of the water system.

The water system construction plans require disinfection, flushing and microbiological testing after construction.

Startup Capacity Evaluation. Provide a copy of the microbiological test results after construction. The disinfection test results must be satisfactory. Provide also a copy of the water system's operating procedures requiring disinfection, flushing, and microbiological testing after repairs or system modification is complete. The operating procedures must be evaluated as satisfactory.

If the water system elected to post the project with appropriate signs, e.g., "the water system is under construction and the water is not drinkable" and maintain the distribution system filled with chlorinated water after satisfactory microbiological testing following construction, the water in the distribution system must be drained and refilled after the DOH approval to operate the water system is granted. Microbiological testing should also be conducted following refilling of the distribution system.

(4) ADEQUATE MAINTENANCE PROGRAM

- a. The water system has a preventive and corrective maintenance program which identifies the maintenance action, schedules the action, and records the maintenance performed.

Startup Capacity Evaluation. Provide a copy of the water system's preventive maintenance program.

- b. The water system has a cross-connection control and backflow prevention program. The program includes maintaining a list of the installed backflow prevention devices which require periodic retesting.

Startup Capacity Evaluation. Provide a copy of the water system's cross-connection and backflow prevention program.

(5) ACTUAL PERFORMANCE

- a. The water system has demonstrated a willingness to comply with the Federal and State primary drinking water requirements and other State permitting requirements.

Startup Capacity Evaluation. The SDWB will evaluate this attribute. No input is required from the water system.

3. MANAGERIAL CAPACITY EVALUATION

- A. Managerial capacity refers to the ability of the water system to manage itself, including clear ownership, organization, and communications; and accountability, adequate management, staffing, policies, training, and information management; and effective relationships with customers and regulatory agencies.

Managerial capacity is demonstrated by the following:

(1) CLEAR IDENTIFICATION OF WATER SYSTEM OWNERSHIP

- a. Provide the name of the water system's legal owner, and the owner's address, telephone number and fax number. If the legal owner will subsequently transfer ownership to the homeowners association or another non-profit entity, the CC&R or a notarized document should so state.

The information required was provided before beginning construction of the water system as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. A copy of the CC&R recorded in the Bureau of Conveyances of the State of Hawaii, that stipulated the transfer of the water system infrastructure, land, and easements, must be provided.

- b. The owner/developer owns the water source(s) and the land the infrastructure is to be built on, or has obtained leases, easements, or right of use of the property and access agreements. If the owner/developer will not retain ownership of the water system source(s), real estate and its physical assets, but will transfer ownership to the homeowners association or another entity, then the CC&R or a notarized document should so state.

The information required was provided before construction of the water system was started as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. A copy of the CC&R recorded in the Bureau of Conveyances of the State of Hawaii which stipulated the transfer of the water system

infrastructure, land, and easements must be provided.

(2) QUALIFIED MANAGEMENT

- a. Since the water system manager is responsible for policy decisions and compliance with Federal and State drinking water regulations, the water system manager must be qualified to manage the public water system through training and/or experience. The manager is also responsible for the water system completing the compliance monitoring and reporting responsibilities. The owner/developer will need to stipulate that a professional water systems operations company will be contracted to manage and operate the water system, in the homeowners association by-laws and the CC&R.

The commitment to use a qualified water system operations company to manage and operate the new water system was provided prior to construction of the water system as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. A copy of the signed contractual agreement between the water system owner and the water system operations company, and a copy of the homeowners association by-laws and the CC&R recorded in the Bureau of Conveyances of the State of Hawaii, that stipulates that a water system operation company will manage and operate the water system, must be provided.

- b. The water system should have a policy for the manager to keep up-to-date on new or revised Federal and State regulations and on drinking water industry technical changes which could improve their water system's performance. The manager should also use the information in a timely manner.

Startup Capacity Evaluation. The water system policy for the manager to keep up-to-date on new or revised drinking water regulations and to keep abreast of water system technical changes must be provided. The policy should also require the manager to use the information in a timely manner.

(3) STAFFING

- a. The water system management has established the appropriate operator certification class level for the distribution system (and the water treatment plant if applicable), and at a minimum, has assigned by names, the certified primary and backup operators.

Startup Capacity Evaluation. The operator certification class for the water system and the names of the primary and backup operators must be provided.

(4) CLEAR ORGANIZATIONAL STRUCTURE AND COMMUNICATIONS

- a. The relationship between the water system owner and the contracted professional companies (to manage and operate water system, and provide financial management services) needs to be understood. The developer/owner shall provide: (1) a chart showing the relationship or interface between the water system owner and the contracted companies, and (2) a chart showing the organizations of the companies contracted. The names of key personnel, their primary responsibilities, and telephone numbers should also be provided.

Startup Capacity Evaluation. Provide the water system organizational charts and requested information about key personnel.

- b. The water system operations company contracted has internal procedures on how to notify all customers on short notice (e.g., to boil water if a positive fecal coliform sample result is obtained).

Startup Capacity evaluation. The water system's procedures on how to notify customers about emergent actions on short notice must be provided.

(5) ADEQUATE EMERGENCY RESPONSE PLAN

- a. The water system has a written emergency response plan. The plan should include actions for plausible emergencies, abatement actions for each emergency, public notification procedures and specific responsibilities of key individuals.

Startup Capacity Evaluation. The water system's emergency response plan must be provided.

(6) ADEQUATE INTERNAL POLICIES

- a. Proposed modifications of the water system which could affect the DOH's approval of the water system must be brought to the attention of the water system manager for review and referral to the DOH as warranted.

The procedures for processing changes which could affect the DOH's approval of the construction plans during construction, were addressed before beginning construction of the water system as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. The water system's policy or operating procedure should require the water system manager to inform the DOH of significant proposed system modifications as required by HAR 11-20-30. The water system policy or operating procedure must be provided.

- b. The water system should have a standing policy for keeping the DOH informed of monitoring problems, violations, and information on problems, which could affect the delivery of drinking water in the future.

Startup Capacity Evaluation. The water system's policy or operating procedure for keeping the DOH informed of monitoring problems, violations, and problems which could affect the delivery of drinking water must be provided.

- c. The water system should have procedures for filing, record keeping, and tracking regulatory compliance of regulatory programs.

Startup Capacity Evaluation. The procedures for filing, record keeping and tracking of regulatory compliance must be provided.

(7) TRAINING

- a. The water system has an adequate operator refresher training program or has access to training classes. The training includes safety training on the hazards applicable to their jobs.

Startup Capacity Evaluation. The water system's refresher training program must be provided.

(8) EFFECTIVE EXTERNAL LINKAGES

- a. The water system has a booklet or other form of communication to inform each customer on the responsibilities of the customer and also, the responsibilities of the water system.

Startup Capacity Evaluation. The information booklet or other form of communication used to inform customers must be provided.

- b. The water system has a policy to inform customers of water quality problems in a timely manner.

Startup Capacity Evaluation. The water system policy or operating procedure to notify customers of water quality problems must be provided.

4. FINANCIAL CAPACITY EVALUATION

- A. Financial capacity refers to the financial resources of the water system, including an adequate budget, adequate fiscal controls and credit worthiness.

Financial management is demonstrated by the following:

Please identify documents considered business sensitive and annotate that the documents are the property of the water system. The State will return the documents within 30 days of completing the review.

(1) REVENUE SUFFICIENCY

- a. The water system has a five-year or ten-year business plan

or other projection which indicates sufficient revenue is generated to cover its annual operating and maintenance expenses, and repayment of loans, if any. The projected interest and inflation rates used shall be specified.

The initial five-year or ten-year business plan submitted before construction of the water system started was evaluated as satisfactory as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation.

The business plan shall be evaluated as satisfactory and the association by-laws shall have provisions that the association Board of Directors (or equivalent) shall have the ability to raise fees, adjust the water rates, require a special assessment, or levy service charges, etc., to ensure adequate income is generated to maintain a viable water system. The contracted financial management company shall be required to provide to the following to the association Board of Directors:

- Periodic recommendations on revising the fees, adjusting the water rates, or other actions necessary to continue to generate sufficient funds to operate and maintain a viable water system. The changes in energy costs, interest rates, and inflation rates dictate the need for the periodic reviews on whether the water system's income is adequate.
- At a minimum, a yearly financial profit and loss statement for the water system operation.

Provide a copy of the bank account established for the operation and maintenance of the water system.

- b. The water system has reserve accounts for major component emergency repairs and planned replacement of major components at the end of service life. The reserve accounts should have sufficient detail, including a listing of the major components, the actual cost to purchase and install the components, the estimated service life of the components, and the projected replacement cost of the component at the end of service life. The interest and inflation rates used to obtain the projected replacement cost

at end of service life, should also be identified.

The reserve accounts for major component emergency repairs and planned replacement of major components at end of service life information submitted prior to construction were evaluated as satisfactory as part of the pre-construction capacity evaluation.

Startup Capacity Evaluation. The reserve accounts established for major emergency repairs and planned component replacements at the end of service life must be evaluated as satisfactory. The reserve accounts submitted shall have the up-to-date figures the operational and financial management companies will rely upon.

The business plan shall be evaluated as satisfactory and the association by-laws shall have provisions that the association Board of Directors (or equivalent) shall have the ability to raise fees, adjust the water rates, require a special assessment, or levy service charges, etc., to ensure adequate income is generated to maintain a viable water system. The contracted financial management company shall be required to provide to the following to the association Board of Directors:

- Periodic reviews on whether the major component emergency repair and replacement of major components at the end of service life accounts will have sufficient funds since changing energy cost, interest rates, and inflation rates all affect the viability of the accounts.

Provide a copy of the water system's bank account for the major component emergency repairs (must be fully funded) and the bank account to accumulate funds for major components replacement at the end of service life.

(2) FINANCIAL MANAGEMENT

- a. The water system shall have a financial organization with the necessary staff for billing customers, collecting payments, paying water system expenses, preparing budgets and providing annual financial reports to the owner.

The owner/developer's commitment that the homeowners

association by-laws and CC&R will stipulate that a financial management company will be contracted to provide the financial services, was evaluated as satisfactory prior to start of construction.

Startup Capacity Evaluation. Copies of the following documents are required: (1) a copy of the signed contractual agreement between the water system owner and the financial management company, and (2), a copy of the homeowners association by-laws and the CC&R recorded in the Bureau of Conveyances of the State of Hawaii stipulating that a property management company will assist in the financial management of the water system for the owner, are required. The financial management company's responsibilities should include:

- billing for the water delivered, collection of payments, and paying the water system bills;
 - maintaining the financial records;
 - providing proposed operating budgets for the association Board of Director approval;
 - maintaining the bank accounts for the operating and maintenance account, the major component emergency repair/replacement account, and the replacement of major components at end of service life account; and
 - providing periodic budget performance reviews.
- b. The water system will have procedures to safe guard the water systems financial assets, for example: annual budgets approved by the water system owner or authorized representative, budget performance reviews, a bank account for operating and reserve funds, and profit and loss statements.

Startup Capacity Evaluation. The contractual agreement between the water system owner and the financial management company shall identify the financial management company's responsibilities are identified in paragraph (2) a. above.

- c. The water system shall maintain detailed financial records which clearly identifies the sources of income and the expenses involved in operating the public water system.

Startup Capacity Evaluation. The signed contract with the financial management company should include the responsibilities in paragraph (2) a. above.

(3) CREDIT WORTHINESS

- a. The water system owner/developer is financially healthy and credit worthy.

The credit reports or other documentation on the financial health of the water system's owner/developer was evaluated as satisfactory prior to starting construction of the water system.

5. SATISFACTORY SANITARY SURVEY

- A. A sanitary survey of the water system has been conducted and all deficiencies identified have been satisfactorily addressed.
 - (1) The owner shall notify the DOH when the system construction is completed.
 - (2) The as-built certification by the engineer and a copy of the record or as-built drawings has been submitted to the DOH.