Water Supply Restoration Funding Program

Standard Operating Procedure Manual

October 2020

Purpose & Intent

The purpose of this manual is to set forth procedures for implementing the requirements of Chapters 373.30 F.S., to restore or replace potable water wells and provide a satisfactory potable water supply to property owners whose potable water wells have been contaminated by the storage, transportation or disposal of pollutants. The Water Quality Assurance Trust Fund (WQATF), as established in Section 376.307, F.S., and the Inland Protection Trust Fund (IPTF), as established in Section 376.3071, F.S., was created, in part, to implement restoration or replacement for these potable water sources. Therefore, determining eligibility, providing forms for assistance, assessing feasibility, and providing procedures for satisfactory water supply restoration or replacement are included herein.

This manual also sets forth the eligibility criteria for the allocation of funds, and the application process to be used when applying for funds through the Water Well Delineation Rule 62-524, F.A.C., as allowed in Section 376.307(1)(e)4.b., F.S.

This manual is applicable to the Department and to all individuals, corporations, and local governments applying for or receiving funds for restoration or replacement of potable water wells contaminated by substances covered throughout this manual.

Definitions

"**Anthropogenic Source**" means Spills, discharges, and escapes of pollutants, dry-cleaning solvents, and hazardous substances that occur as a result of procedures taken by private and governmental entities involving the storage, transportation, and disposal of such products pose threats of great danger and damage to the environment of the state, to citizens of the state, and to other interests deriving livelihood from the state. NOTE: this does not include contamination caused by the treatment of potable water such as disinfection byproducts, does not include contamination leaching from a water distribution system such as lead and does not include naturally occurring groundwater contamination such as radionuclides and other metals.

"**Department**" shall mean the Department of Environmental Protection.

"**Present Worth**" means equivalent present value which is calculated by converting costs that are anticipated to occur at different times to a present value considering inflation and the discounting effect of interest. The discount rate to be used in the analysis will be derived from the average annual Treasury Bill rate. The adjustment for inflation used in the analysis will be based on the Federal Bureau of Labor Statistics' Producer Price Index-all commodity category. The span of time used in this calculation will be a 10-year period.

"**Privately Owned Well**" shall mean any well used primarily for drinking water that is not owned by a federal, state, or local government body.

"**Replacement**" means providing an alternate source of water from a new potable water well or connection to public water system to obtain safe, potable drinking water and eliminating the use of a contaminated source of potable water.

"**Restoration**" means providing filtration or other treatment for a contaminated source of drinking water that will remove or reduce the contaminants to a level which will no longer present a hazard to public health and will comply with all applicable potable water quality criteria or by providing bottled water on an ongoing basis where the contaminants route of exposure is only through ingestion.

"**MCL**" means Maximum Contamination Level as set forth in the Clean Water Act

"**HAL**" means Health Advisory Level as established by the State Health Officer

"**WQATF**" means Water Quality Assurance Trust Fund

"**IPTF**" means Inland Protection Trust Fund

Eligibility for Restoration or Replacement

Qualifying Contaminant(s)

The following is chemical contamination which qualifies potable water wells for restoration or replacement funding as generally defined in Section 376.30, F.S.:

a) A substance which has an established health related MCLs due to being carcinogenic, mutagenic, teratogenic or toxic to human beings.

b) A substance which poses a serious danger to the public health, safety and welfare as established by the State Health Officer in the Department of Health through the establishment of HALs.

Qualifying Eligibility

Potable water wells affected due to anthropogenic source of contaminants as described in this manual and the foregoing are eligible if:

(a) The level of the contaminant exceeds a health-related primary drinking water standard established in Rule 62-550, F.A.C., TABLE 1, 4, and 5.
(b) The contaminant exceeds a health advisory level established by the U.S. Environmental Protection Agency, or,
(c) The contaminant exceeds the safe, potable level which the State Health Officer of the Department of Health (DOH) in coordination with the Department, has determined for the specific contaminant. Established by issuance of a HAL.

Qualifying Samples

In order to qualify for restoration or replacement, samples must:

(a) Be collected from the primary potable water well source to insure representative groundwater by a Florida state agency or its agents
(b) Be performed by the federal government and confirmed by WSRFP personnel.
(c) Be analysis by a laboratory of a Florida state agency or the federal government.
(d) WSRFP may request confirmation sampling in order to and confirm groundwater contamination.

Funding for Restoration and Replacement

WQATF and IPTF Fund Usage

The Department shall use restoration or replacement funds to provide the most cost-effective solution to restore or replace the contaminated potable water well as determined by the Department to the extent funds are available from the specific funding sources.

(a) Funds shall not be used to provide increased capacity for a potable water supply system, unless such increase is a more cost-effective alternative than other available alternatives.
(b) For non-state applications, expenditures from the WQATF shall be recovered from the person or persons causing or having caused the discharge which resulted in the contaminated potable water supply, whenever that determination is made by the Department, unless the Department determines the amount is too small or the likelihood of recovery too uncertain.
(c) Contamination resulting from a mixture of chemicals, such as solvents and petroleum derivatives, shall require use of the WQATF. Use of the IPTF funds for restoration or replacement shall be restricted to potable water wells contaminated with petroleum compounds.
(d) Funds from WQATF and IPTF can also be used to replace water supply lines where permeation of pipe and gasket materials has occurred due to soil or ground water contamination.
(e) Funds can be used for construction of water lines and services when this is a cost-effective alternative upon consideration of future well contamination, ground water movement and cleanup of contaminated ground water.

Application for Restoration or Replacement Assistance

As Qualified Sampling and Eligibility is confirmed , an informative letter known as Owner Contact 1 (OC1), informing the owner of the water problem, and WSRFP form known as the "Request For Water Supply Restoration Form," is supplied by the Department and mailed to the affected well owners. To be eligible for restoration or replacement funding, owners shall submit a signed copy of the appropriate application form with supporting documents to the Department, failure to submit the form in a timely manner may result in eligibility re-evaluation and/or the need for re-sampling. Applications will be reviewed by the Department within 30 days of receipt to verify such application data as ownership, potable use of contaminated well, approximate

number of people served, other possible alternate water sources and execution of the liability release form where applicable.

Selection of Restoration or Replacement Alternatives

After an owner signs and returns the form, WSRFP personnel will confirm the location of the well and review the area for other known WSRFP activities. The Department may then contact the county public health unit, the water management district (WMD), or public utilities to obtain general information regarding the site. The general information includes public utilities in the area, general water quality data and the potential for other well contamination problems in the vicinity.

The information obtained shall be evaluated before making a decision on the alternative to be used. The most cost-effective solution as determined by the Department will be selected and offered.

Existing and future contaminant sources along with existing contaminated potable well locations will also be considered for restoration or replacement alternatives. The potential for contamination problems on existing and future uses of land in the vicinity of existing wells will also be reviewed.

Cost Determination

Determination of costs for each feasible alternative will be developed as follows:

(a) Where available, the public utilities in the area shall be contacted to obtain a cost estimate for providing water service to the property. Replacement of a contaminated potable water supply by connecting to a public water system is the alternative of choice since it provides a permanent and reliable solution. Plumbing costs for a service line from the meter to point of use shall also be included in the estimate. State funds shall not be used for utility account deposit and monthly billing for water.

(b) Depending on the concentration of the contaminant and hydrogeology, construction of a new potable water well will be considered. Hydrogeological information available from the water management districts, the Department's site investigation reports, contamination assessment reports on petroleum sites, drilling contractors, and any other informed sources shall be used to evaluate this alternative and obtain cost data. If a new well is constructed, state laboratory analyses from the new water source shall be obtained to confirm that it is a satisfactory replacement for the contaminated well. Caution will be used for this option since historically new well installations frequently draw the contamination to the new well. **NOTE: An owner may initiate and pay for a new well. Once the new well is tested, upon initial use and after one year of use and results show no violations the owner may be reimbursed up to the 10-year present worth cost.

(c) Water treatment alternatives and technologies will be evaluated for specific contamination problems. The contaminant's route of exposure shall be considered when selecting the placement (Point of Use Vs. Point of Entry) of a treatment device. However, these alternatives will require monitoring, and maintenance. Installation of a treatment system and its recurring

costs are the baseline for comparing its feasibility and cost-effectiveness. The analysis used to select the most cost-effective solution is based on the costs for the water treatment device over a 10 year period and is known as the 10 Year Present Worth Filter Cost (10YPWFC). Where there is confirmed potable water supply well contamination, bottled water can be provided on a temporary or permanent basis until a more stable and convenient source of potable water can be obtained. If a water distribution extension is the most cost-effective remedy, emergency actions such as bottled water delivery or bottle water coupons may be necessary to provide potable water temporarily until the construction is completed.

Homeowners or small business owners with contaminated potable water wells may qualify for financial assistance related to replacement of the well or connection to a public water supply (PWS), provided the cost does not exceed the 10-year present worth cost of a filter system. A filter system may be offered, installed and maintained to restore the well's potability if connection to a PWS is not possible.
Where existing contaminated wells have received filtration or other treatment devices and public water becomes available, the treatment units shall be removed and water connection to PWS will be offered.

No filter or other subsidy shall be provided for a potable water well designed to provide water to a household that is part of a subdivision or development of such size that would be more effectively served by a central water system if such a subdivision or development received its development order after January 1, 1989.

Potable Water Well Construction in Actual or Potential Areas of Contamination

Subsidies are available to persons developing new water supply wells to be constructed in accordance with Chapter 62-524, F.A.C., because of actual or potential contamination of potable water wells. This subsidy to developments or individual homeowners shall not exceed the 10-year present worth of providing and maintaining the filters necessary for the residents to be served by the system. In areas of potential contamination, use of the IPTF is not permitted for subsidies to develop new water supply wells.

New Wells in Delineated Areas

Per Chapter 376.307(1)(e)4.b., F.S., WSRFP may provide subsidies for any increased costs associated with potable water well construction pursuant to s. 373.309(1)(e)4., provided that no such subsidy shall exceed one-half the cost of the well including testing, or one-half the present worth of the 10-year cost of providing and maintaining filters for the residents to be served by said well, whichever is less, provided that the household is not part of a subdivision or development of a size that would, according to the department, be more effectively served by a water supply system, if such subdivision or development received its development order on or after July 1, 1997.

All reimbursements are contingent upon the availability of funds. Applicants must submit WSRFP form "New Well Subsidy Reimbursement Request". Applicants must also complete the on-line vendor registration at DMS's website.

Terminating Assistance and/or Filter Removal

Bottled water delivery or filter work will be stopped whenever a connection to a public water utility is available.

Filter work or bottled water delivery will be discontinued and/or removed based on the following (all samples are from the RAW water tap only) and will be initiated once a filter site meets the quarterly sampling criteria as outlined in 'New Violations and Raw Water Sampling at Filtered Sites':

Contaminants Where Target is Greater Than Detection Level

For solvents, pesticides, and hydrocarbon types of contamination where the MCL/HAL is set at an order of magnitude higher than the Laboratory's Method Detection Level (MDL) filter work will be terminated and removed when possible after the following:

- A current sample shows contaminant is less than or equal to MCL/HAL
- Routine filter exchanges will be suspended.

Quarterly sampling will then be implemented (if not already being done). To account for seasonal and activity changes over a year, samplers should attempt to collect 4 consecutive quarterly samples. After 4 consecutive samples are collected and none of those samples report a MCL/HAL violation, and the average of the 4 consecutive samples is less than or equal to ½ the MCL/HAL the owner will be informed of our intent to discontinue maintenance and to remove the filter. The HD will collect 1 additional raw water sample within a year after filter removal. Customer requests for additional sampling shall then be handled by the County DOH as normal.

Once a filter has been removed, samples reporting a violation will be handled as a new violation.

In addition to the sampling protocol professional judgment shall be used before filter removal, taking into account the following; ongoing clean-up/pump and treat activities, other similarly contaminated sites with consistent contaminant levels in the area, and/or other local known activities that may impact contamination levels.

Before filter removal at PWS facilities, inform PWS authorities of the pending change to the PWS treatment.

Contaminants Where Target is Close to its Detection Level

For contaminants where the MCL/HAL is very nearly equivalent to the Laboratory MDL. for example, Dieldrin's HAL is equal to 0.002 ug/L, the MDL is equal to 0.0018 ug/L, a slight difference of only 0.0002 ug/L. The following protocol will be followed:

- Once raw water sample results have dropped to below the MCL/HAL, 4-quarterly raw water samples will be collected by DOH or appropriate DEP district office. (Whenever possible, DOH should attempt to obtain samples from different quarters to check for seasonal fluctuations.) Filter maintenance will be terminated, and an offer of filter removal made after none of the 4 samples report a violation and the average of four quarterly samples are below the ½ MCL/HAL

For solvents, pesticides, and hydrocarbon types of contamination such as Dieldrin, where the MCL/HAL is NOT set at an order of magnitude higher than the Laboratory's Method Detection Level (MDL) filter work will be terminated and removed when possible as follows:

- A current sample shows contaminant is less than or equal to MCL/HAL. quarterly sampling will then be implemented (if not already being done), to account for seasonal and activity changes over a year. Samplers should attempt to collect 4 consecutive quarterly samples.
- After 4 consecutive samples are collected and all sample results report below the MCL/HAL, initiate filter removal procedures.

Once these conditions have been met, the owner will be informed of our intent to discontinue maintenance and to remove the filter. The HD will collect 1 additional raw water sample within a year after filter removal. Customer requests for additional sampling shall then be handled by the County DOH as normal.

Once a filter has been removed, samples reporting a violation will be handled as a new violation.

In addition to the sampling protocol Professional judgment shall be used before filter removal, taking into account the following; ongoing clean-up/pump and treat activities, other similarly contaminated sites with consistent contaminant levels in the area, and/or other local known activities that may impact contamination levels.

Before filter removal at PWS facilities, inform PWS authorities of the pending change to the PWS treatment.

Nitrates and Lead Contamination

For total Nitrates & Lead, filter work will be terminated and removed when possible as follows:

- A current sample shows contaminant is less than or equal to MCL/HAL.
- Quarterly sampling will then be implemented (if not already being done) to account for seasonal and activity changes over a year, samplers should attempt to collect 4 consecutive quarterly samples.
- After 4 consecutive samples are collected and none of those samples report a MCL/HAL violation and the average of the 4 consecutive samples is less than or equal to 3/4 the MCL/HAL., initiate filter removal procedures.

Once these conditions have been met inform the owner of our intent to discontinue maintenance and to remove the filter. The HD will collect 1 additional raw water sample within a year after

filter removal. Customer requests for additional sampling shall then be handled by the County DOH as normal.

Once a filter has been removed, samples reporting a violation will be handled as a new violation.

In addition to the sampling protocol Professional judgment shall be used before filter removal, taking into account the following; ongoing clean-up/pump and treat activities, other similarly contaminated sites with consistent contaminant levels in the area, and/or other local known activities that may impact contamination levels.

Before filter removal at PWS facilities, inform PWS authorities of the pending change to the PWS treatment.

Arsenic Contamination

Due to the relatively high health risks associated with arsenic, a more stringent filter removal protocol will be followed. For Arsenic filter work will be terminated and removed when possible as follows:

- Current sample results indicate the contaminant level is less than or equal to the MCL/HAL; Quarterly sampling will then be implemented (if not already being done) to account for seasonal and activity changes over a year, samplers should attempt to collect 4 consecutive quarterly samples.

- After 4 consecutive samples are collected and none of those samples report a MCL/HAL violation and the average of the 4 consecutive samples is less than or equal to ½ the MCL/HAL, initiate filter removal procedures.

Once these conditions have been met, the owner will be informed of our intent to discontinue maintenance and to remove the filter. The HD will collect 1 additional raw water sample within a year after filter removal. Customer requests for additional sampling shall then be handled by the County DOH as normal.

Once a filter has been removed, samples reporting a violation will be handled as a new violation.

In addition to the sampling protocol Professional judgment shall be used before filter removal, taking into account the following; ongoing clean-up/pump and treat activities, other similarly contaminated sites with consistent contaminant levels in the area, and/or other local known activities that may impact contamination levels.

Before filter removal at PWS facilities, inform PWS authorities of the pending change to the PWS treatment.

Unresponsive Well Owners

As previously mentioned; “As Qualified Sampling and Eligibility is confirmed, an informative letter known as Owner Contact 1 (OC1), informing the owner of the water problem, and ORP

form known as the 'Request For Water Supply Restoration Form', is supplied by the Department and mailed to the affected well owners".

1. If no response after 2 or 3 months, send OC2.
2. If no response after 4 or 6 months, send OC Final.
3. If no response after 1 year, a Recheck Letter is sent.
4. If still no response after 1 year, a recheck end letter is sent notifying the homeowner that they will receive no further correspondence from ORP.

Lost/no response well owners, after solution offered.

If contact is lost or where owner is non-responsive after initial restoration, such as vacant property, bad contact numbers, refused solution, or cannot access filter.

1. Send initial non-restoration letter. Such as refused water line available letter, FD letter or initial re-check letter.
2. If no response after one year, send recheck letter. Check for new owner.
3. If still know response after one year, send a Recheck End letter notifying owner that they will receive no further correspondence from WSRFP. They will then need to initiate contact the local Dept. of Health for re-sampling.

Program Procedures

The WSRFP hires/pays contractors to perform water restoration work (e.g., filter installation, plumbing connections). This work is negotiated through a contract, purchase order, or can be reimbursed to the homeowner. Filter work is authorized through the issuance of work orders.

Invoices are reviewed by the Program Budget Specialist, the Program Coordinator, and for well subsidy's, additionally, the Program Administrator before being sent to the Finance and Accounting department for payment processing. This multi-level review is conducted to minimize fraud. Other methods employed to minimize fraud include customer surveys on work conducted, and requiring documentation of work performed (e.g., photos, subcontractor signatures).