

GUIDANCE MANUAL

*for the
Private and Type III Water Supply Program*



**Well Construction Unit
Drinking Water and Environmental Health Section
Water Bureau**



1/2007

Michigan Department of Environmental Quality

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ACRONYMS

CIU	Contamination Investigation Unit
Contractor	Water well drilling/pump installation contractor
DAGR	Department of Agriculture
DCH	Department of Community Health
DEQ	Department of Environmental Quality
DWEHS	Drinking Water and Environmental Health Section
DWRPD	Drinking Water and Radiological Protection Division
EH	Environmental Health
GRCC	Generic Residential Cleanup Criteria
LHD	Local Health Department
LTM	Long-term Monitoring
MCL	Maximum Contaminant Level
MPR	Minimum Program Requirements
NREPA	Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451
PHC	Public Health Code
SDWA	Safe Drinking Water Act, 1976 PA 399
State Well Code	Part 127, Groundwater Quality Control, of the Water Supply and Sewer Systems Act, 1978 PA 368
USEPA	U.S. Environmental Protection Agency
WB	Water Bureau
WCU	Well Construction Unit

SECTION 1

Drinking Water Supply Program Overview

Instructions for Evaluators

Evaluation Process Summary

Drinking Water Supply Program

Overview

State funds are provided through the Departments of Environmental Quality (DEQ) and Community Health (DCH) to operate local drinking water supply regulatory programs in 44 Michigan local health departments (LHDs). Annual Local Health Department Operation Contracts are offered by the DEQ, Water Bureau (WB). Under the contracts the LHDs are expected to adhere to Minimum Program Requirements (MPRs) and applicable provisions of Part 127, Water Supply and Sewer Systems, of the Michigan Public Health Code (PHC), 1978 PA 368, as amended (State Well Code). The MPRs establish consistent statewide program activities and goals and were developed in consensus with the Michigan Association of Local Environmental Health Administrators (MALEHA) in the mid-1990s for eight core public health programs. Included are three environmental health programs (Drinking Water Supplies, Food Service Sanitation, and On-Site Sewage Disposal Management). The DWEHS, oversees the Drinking Water Supply Program.

The Drinking Water Supply Program incorporates a preventive public health strategy to ensure that newly installed on-site water well systems are safe and reliable sources of drinking water.

The purpose of this "Guidance Manual" is to assist the LHDs in meeting the Drinking Water Supply Program MPRs, Numbers 5 through 8, which address Private and Type III Public Water Supplies. The manual also assists the DEQ staff in evaluating the LHD performance. The performance evaluations accomplish the following goals:

1. Assess the LHD compliance with the MPRs and Local Health Department Operations Contracts.
2. Ensure appropriate use of state funds allocated for local drinking water supply protection programs.
3. Identify unique local program components or activities that could enhance programs within other LHDs.
4. Determine levels of compliance with the State Well Code.

For further information, contact the Well Construction Unit (WCU), WB, DEQ, P.O. Box 30273, Lansing, Michigan 48909-7773, phone 517-241-1370, fax 517-241-1328.

Instructions for Evaluators

1. The **Evaluator** shall be a DEQ, WB, staff member who has attained practical knowledge in the following areas:
 - a. Water System construction and evaluation methods.
 - b. Legal requirements of the State Well Code.
 - c. The LHD operations.

A qualified third-party **Evaluator** may be used.

2. A phone call should be made to the LHD, Environmental Health Director (EHD), to schedule the evaluation. A follow-up letter should be sent. During the initial phone call, the **Evaluator** should:
 - a. Indicate the type of files and materials to be reviewed and request that the files be readily available upon arrival.
 - b. Request copies of current local water well permit ordinances, policies and procedures, permit forms, and inspection tags if the DEQ files do not already contain these items.
 - c. Give the approximate length of time needed for the evaluation and schedule the date(s) for the evaluation.
 - d. Request to be accompanied by the LHD field staff during completion of the field component.
 - e. Verify that they have the Evaluation Procedures Manual.
3. Before the initial phone contact, the **Evaluator** should thoroughly review the DEQ files and consult with region or district DW&EHS staff who work with the particular LHD, to become familiar with the LHD program.

The **Evaluator** should inspect the following files located in the DEQ, WCU:

- a. The LHD general correspondence file.
 - b. The LHD evaluation file.
4. An opening interview should be conducted with the LHD, EHD, and program staff, to briefly review the evaluation process.

5. After the opening interview, the **Evaluator** should request that the LHD staff thoroughly explain all steps involved in processing permits. The **Evaluator** will gain a better understanding of the permitting process if he or she follows the permit from the application stage through to the final approval of the water system and ultimate filing of the completed permit.
6. After completion of the evaluation, an exit interview with the LHD, EHD (or supervising sanitarian) is conducted. The **Evaluator** should briefly outline program strengths, weaknesses, and recommendations and indicate when the evaluation report will be available. The status of compliance with the MPRs that will appear in the report shall be clearly conveyed to the EHD during the exit interview.

If the MPR compliance status is uncertain at the time of the exit interview, the **Evaluator** shall notify the EHD after a decision has been made and before the evaluation report is sent to the LHD.

7. A draft evaluation report is prepared within 30 days and reviewed by the chief of the WCU.
8. The final evaluation report and transmittal letter are prepared and sent to the chief of the DWRPD for signature and then sent to:
 - a. Health Officer and a copy to the EHD of the LHD.
 - b. The DEQ, WB, district and program staff.
9. Record the results of the evaluation on the DEQ, LHD evaluation tracking spreadsheet.
10. File the hard copy of the evaluation report in the appropriate file.
11. If reevaluation is needed before the next evaluation cycle, tentatively schedule the reevaluation time.

Evaluation Process Summary

1. Review the DEQ, LHD program files located within the WCU.
2. Contact the LHD, EHD and schedule an evaluation.
3. Send a follow-up letter to the LHD to confirm date(s) of the evaluation.
4. Conduct an opening interview with the EHD.
5. Evaluate the water well permit processing and water well record review, filing, and tracking practices.
6. Review the LHD files (water well drilling/pump installation contractor [Contractor] complaints, contamination sites, etc.) and program policies.
7. Conduct field inspections of newly completed water well systems.
8. Tabulate the results of the evaluation (office and field components).
9. Complete an exit interview – review findings and confirm MPR compliance status.
10. Compile the evaluation results and prepare a draft report.
11. Forward the draft report to the chief of the WCU for review.
12. Forward the finalized report and cover letter to the secretary for preparation and transmittal to the chief of the WB for signature.
13. Mail the final report and file the DEQ copy.
14. Record the evaluation results on the DEQ tracking spreadsheet.
15. Schedule a reevaluation if needed.

SECTION 2

DEQ/LHD Contract Appendix G

Minimum Program Requirements

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
APPENDIX G
OCTOBER 1, 2006 THROUGH SEPTEMBER 30, 2007
PRIVATE AND TYPE III DRINKING WATER SUPPLY REQUIREMENTS

A. Statement of Purpose

This agreement is intended to establish responsibilities for both the Local Entity and the State in the conduct of Private and Type III Drinking Water Supply Program services required under Part 127, 1978 PA 368, as amended, and the Administrative Rules, and in accordance with the attached Minimum Program Requirements (MPR).

B. Local Entity Requirements

The Local Entity shall perform the following services including but not limited to:

1. Perform water well permitting activities, predrilling site reviews and water supply system inspections for code compliance purposes with qualified individuals classified as sanitarians or equivalent.
2. Assign one individual to be responsible for quarterly reporting of the data and to coordinate communication with the assigned State staff. Reports shall be submitted no later than fifteen (15) days following the end of the quarter on forms provided by the State.
3. Perform the activities described in items 5 through 8 of the MPR dated October 1, 1996, the associated performance indicators, and use the "Guidance Manual for the Private and Type III Drinking Water Supply Program," October 2002, as furnished by the State to implement the MPR provisions.

C. State Requirements

The State shall perform the following services including but not limited to:

1. Provide training and guidance to the Local Entity in the form of procedural manuals, training meetings, joint inspections, consultations, and copies of rules, policies, and handouts.
2. Provide necessary forms for water well records and abandoned well plugging records and Wellogic access for review of electronic water well record data.

3. Provide program consultation and direct staff assistance where necessary in pursuing compliance with applicable construction and water quality standards and in the completion of water quality investigations.

D. Payment Schedule

Reimbursement will be based upon the approved funding formula applied to the number of predrilling site reviews and final inspections performed, and abandoned wells plugged in the geographical area served by the Local Entity. The FY 2006-2007 allocation schedule is attached depicting the funding amount for the services required in this agreement.

1. Quarterly programmatic reports shall be sent to: Environmental Health Program Unit, DWEHS, ERMD, MDNRE, P.O. Box 30241, Lansing, Michigan 48909-7741. If you have any questions, contact the unit secretary, Diane Reck, who can be reached at 517-241-1318 or by e-mail at reckd@michigan.gov.
2. Based on the Local Entity's satisfactory progress in fulfilling its responsibilities under this agreement, monthly payments will be made by the State beginning in October.
3. The final September payment will be made by the State upon receipt of a financial status report (FSR) (form EQP 2069) from the Local Entity and based upon the Local Entity's fulfillment of its responsibilities under this agreement. The final FSR is due by October 31. A blank copy of the FSR is attached. The FSR should be sent to: Administration Section, Environmental Resource Management Division, MDNRE, P.O. Box 30241, Lansing, Michigan 48909-7741. If you have any questions, contact the unit secretary, Diane Reck, who can be reached at 517-241-1318 or by e-mail at reckd@michigan.gov.

E. Accountability

The Local Entity shall maintain adequate accounting and employee activity records to reflect that all funds granted under this contract have been expended for the program activities as approved by the State. These records shall be made available upon request for audit by the MDEQ.

Records will be retained by the Local Entity until an audit has been completed by the MDEQ or permission has been granted by the MDEQ to dispose of the records.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY



Minimum Program Requirements

Element: Drinking Water Supply

Page 1 of 3

Date: October 1, 1996

Director's Signature:

ELEMENT DEFINITION:

The Drinking Water Supply program is designed to protect the sources of drinking water, provide potable water to users, assure proper installation and operation of drinking water supplies, assure proper plugging of abandoned wells, and to assure that public water supplies are operated in compliance with state and federal safe drinking water supply requirements.

MINIMUM PROGRAM REQUIREMENTS:

1. The local health departments shall maintain a current inventory and facility file of all noncommunity public water supplies within its jurisdiction and submit revisions to the department quarterly. Reference: Act 399, P.A. of 1976, 325.1004, 325.1014, and 325.1016.
2. The local health departments shall provide notification, oversight, and enforcement of all required construction, water quality monitoring and treatment for public health purposes at noncommunity public water supplies. Reference: Act 399, P.A. of 1976, 325.1004, 325.1007, 325.1009, 325.1019, and Noncommunity Water Supply Program Manual.
3. The local health departments shall take prompt action to protect the public health and pursue compliance with applicable public or private notice and water quality standards, when it is determined that sewage, surface water, chemicals, or other serious contamination can gain entrance into the ground water or a water supply, or there is a confirmed maximum contaminant level violation. Reference: Act 399, P.A. 1976, 325.1015, and Act 368 P.A. 1978.
4. The local health departments shall complete a sanitary survey on each noncommunity water supply at the frequency specified in the Act and shall issue permits for new noncommunity water supply wells as required in the Act. The surveys and permits shall be completed as outlined in the Noncommunity Water Supply Program Manual. Reference: Act 399, 325.1003, 325.1004, 325.1015.

5. The local health departments shall maintain and review for timeliness, completeness, and accuracy, all well records submitted by well drillers and property owners who install their own well. Faulty records shall be returned to drillers and property owners for correction. Appropriate enforcement action shall be taken to obtain well records from drillers and property owners who fail to comply with Section 12707. Reference: 1978 PA 368, Part 127.
6. The local health department shall have a Private Ground Water Supply Program which includes the following:
 - a. a notification procedure or a permit program, established by a locally adopted ordinance, that requires licensed well drillers or property owners to notify the local health department of the intent to construct a water well;
 - b. field monitoring of well and pump installations and code enforcement activities needed to attain compliance with applicable state and local regulations; and
 - c. a process (regulation, statute, informal agreement, or field inspections) to identify unplugged abandoned wells on sites where replacement wells are drilled or where connections to municipal water supplies are made and to assure the plugging methods used are in compliance with state or local regulations. Reference: Act 368, P.A. of 1978, Part 127, Section 12705, 12706, 12708, 12709, 12714, and R 325.1662(3).
7. The local health department shall investigate, or assist MDEQ in the investigation, of all known or suspected cases of drinking water contamination, shall issue health advisories when appropriate, shall maintain a record of sites of known or suspected ground water contamination and make such information available to the well drilling industry and public.
8. The local health department shall investigate, with technical assistance from MDEQ where appropriate, all written well driller/customer and drinking water complaints.

Supplemental MPR

9. The local health department shall participate in community efforts to protect current and future water supplies from known and potential sources of contamination. Examples of such activities include, but are not limited to, wellhead protection plan development, ground water education projects, and well abandonment demonstration projects. Consideration by MDEQ for funding such activities shall be based on the following:

- (A) compliance with all other MPRs by the local health department,
- (B) availability of funding, and
- (C) submittal of a budget request for this MPR, as a supplement to the budget for the other MPRs, which includes the following:
 - (I) a description of the nature of the community efforts,
 - (II) the anticipated benefit to the community, and
 - (III) projected costs, including but not limited to, personnel, equipment, and supplies.

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>1. The local health departments shall maintain a current inventory and facility file of all noncommunity public water supplies within its jurisdiction and submit revisions to the department quarterly. Reference: 1976 PA 399, 325.1004, 325.1014, and 325.1016.</p>	<p>a. Evidence of accuracy by comparing the noncommunity inventory with lists of licensed facilities (i.e., food service, campground, DSS, migrant labor camps, hospitals, grocery stores, food processing plants, schools, state/federal facilities, etc.), meeting the definition of noncommunity water systems and facilities invoiced for the annual fee.</p> <p>b. Documentation of submittal of inventory data, from existing and newly constructed noncommunity facilities.</p> <p>c. Evidence and records indicating the use of water supply serial numbers on all noncommunity facility documents. Documents including: well records, well permits, deviations, sanitary surveys, water sample results, compliance violation, and enforcement records, and associated notes and correspondence are easily identified, readily available.</p>			

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>2. The local health departments shall provide notification, oversight, and enforcement of all required construction, water quality monitoring and treatment for public health purposes at noncommunity public water supplies. Reference: 1976 PA 399, 325.1004, 325.1007, 325.1009, 325.1019, and Noncommunity Water Supply Program Manual.</p>	<p>a. Procedure in place to track required routine, repeat, and special water quality monitoring and results.</p> <p>b. Evidence and correspondence indicating owners are notified of routine, repeat, and special monitoring requirements. Documentation indicating prompt action is taken when routine samples are not collected or where initial sample results indicate potential violation of state drinking water standards or where sample analyses are unreliable due to overgrowth, excessive transit time, or where the presence of organic chemical contamination is indicated.</p> <p>c. Documentation of violation notices of required monitoring, maximum contaminant level (MCL) violations, or the occurrence of unregulated compounds provided to the owner and the department in a timely manner. Notices of violation include the contaminant, public health effects information, specify precautionary measures, and public notice requirements where applicable. Appropriate enforcement action is taken and documented.</p>			

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>3. The local health departments shall take prompt action to protect the public health and pursue compliance with applicable public or private notice and water quality standards, when it is determined that sewage, surface water, chemicals, or other serious contamination can gain entrance into the ground water or a water supply, or there is a confirmed maximum contaminant level violation. Reference: 1976 PA 399, 325.1015, and 1978 PA 368.</p>	<p>a. Correspondence and records including sanitary surveys, inspection reports, water sample results, violation and enforcement documents indicating condition were appropriately identified, acted upon, and followed-up.</p> <p>b. Documentation including notification of owner of monitoring requirements, notices of violation of construction and drinking water standards, precautionary measures, and public notice requirements are readily available.</p>			

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>4. The local health department shall complete a sanitary survey on each noncommunity water supply at the frequency specified in the act and shall issue permits for new noncommunity water supply wells as required in the act. The surveys and permits shall be completed as outlined in the Noncommunity Water Supply Program Manual. Reference: Act 399, 325.1003, 325.104, 325.1015.</p>	<p>a. Evidence supporting completion of surveys including sanitary survey log records, scheduling of surveys and reinspections, inventory updates, and related correspondence.</p> <p>b. Documentation, records, and correspondence including complete sanitary survey reports, appropriate water sample results, well records, notification to owner of compliance status, appropriate future monitoring requirements, and correction action, violation and enforcement information, where applicable.</p> <p>c. Evidence and procedures supporting receipt of well permit application, timely application review, issuance of permits and final inspection, including well permit and water sample tracking logs or records.</p> <p>d. Documentation, and correspondence including properly reviewed, issued, and inspected well permits, deviations, appropriate water sample analysis, owner notification, timely submittal and review of well records, and approval of completed systems prior to use by the public. Records of violation and enforcement activities where applicable.</p>			

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>5. The local health department shall maintain and review for timeliness, completeness, and accuracy, all water well records submitted by well drillers and property owners who install their own well. Faulty records shall be returned to drillers and property owners for correction. Appropriate enforcement action shall be taken to obtain well records from drillers and property owners who fail to comply with section 12707.</p>	<p>a. Evidence of a water well record filing system or computerized well record database.</p> <p>b. Technical staff reviews well records for timeliness, completeness, and accuracy before filing.</p> <p>c. Documentation that water well records which are not accurate or complete are returned to the driller for additional information.</p> <p>d. Documentation of mailings to drillers regarding the need to submit timely water well records.</p> <p>e. Correspondence to well drilling contractors ordering submittal of past due well records.</p>			

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>6. The local health department shall have a private water supply program which includes a notification procedure or a permit program, established by a locally adopted ordinance that requires licensed well drillers or property owners to notify the local health department of the intent to construct a water well.</p> <p>Field monitoring of well and pump installations and code enforcement activities needed to attain compliance with applicable state and local regulations shall be performed.</p> <p>A process (regulation, statute, informal agreement, or field inspection) shall exist to identify unplugged abandoned wells on sites where replacement wells are drilled or where connections to municipal water supplies are made and to assure that the plugging methods used in compliance with state or local regulations.</p>	<p>a. Local ordinance requiring persons to obtain permits or notify local health department before installation of a water well.</p> <p>b. Documentation demonstrating the installation of private and public water supplies by registered well drillers.</p> <p>c. Documentation of completion of predrilling site reviews (office review or field inspection) of all proposed well drilling sites and completion of final inspections of a minimum of 10 percent of all new wells, to ensure compliance with well construction code.</p> <p>d. Documentation of deviations being issued pursuant to provisions of well construction code.</p> <p>e. Use of well permit for notifying owner of need to plug abandoned well.</p> <p>f. Documentation demonstrating proper plugging of abandoned wells when a replacement well is drilled or when a dry hole is encountered or when the facility has connected to a municipal/ public water supply.</p> <p>g. Documentation of correction orders issued and follow-up inspections when construction violations are identified.</p>			

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>7. The local health department shall investigate, or assist MDEQ in the investigation, of all known or suspected cases of drinking water contamination, shall issue health advisories when appropriate, shall maintain a record of sites of known or suspected ground water contamination and make such information available to the well drilling industry and public.</p>	<p>a. Documentation that water samples are collected for known or suspected cases of water well contamination.</p> <p>b. Documentation that state agencies are assisted in the investigation of potential ground water contamination sites.</p> <p>c. Documentation of health advisory letters sent to all residents involved in the drinking water quality investigations.</p> <p>d. Presence of graphic information depicting known or suspected ground water contamination sites within the local jurisdiction and documentation showing that a map or listing of ground water contamination site locations is available to well drilling contractors and other interested parties.</p> <p>e. Listing of ground water contamination sites used to assess contamination potential of proposed wells.</p>			

Minimum Program Requirements	Indicators	Yes	No	Objectives
<p>8. The local health department shall investigate, with technical assistance from MDEQ where appropriate, all written well driller/customer and drinking water complaints.</p>	<p>a. Documentation that all complaints are investigated promptly and properly.</p> <p>b. Documentation is available supporting investigation findings, corrections, and recommendations.</p>			
<p><u>Supplemental MPR</u> The local health department shall participate in community efforts to protect current and future water supplies from known and potential sources of contamination. Examples of such activities include, but are not limited to, wellhead protection plan development, ground water education projects, and well abandonment demonstration projects. Consideration by MDEQ for funding such activities shall be based on the following</p> <ul style="list-style-type: none"> A. compliance with all other MPRs by the local; health department, B. availability of funding, and C. submittal of a budget request for this MPR, as a supplement to the budget for the other MPRs with includes the following: <ul style="list-style-type: none"> I. a description of the nature of the community efforts, II. the anticipated benefit to the community, and III. projected costs, including but not limited to, personnel, equipment, and supplies. 	<p><u>Note:</u> Indicators will be established to meet acceptable supplemental MPR.</p>			

SECTION 3

Program Evaluation Criteria

Type III Water Supplies

Program Evaluation Criteria

Private and Type III Public Drinking Water Supply Program

Purpose

To establish uniform criteria for evaluating LHD compliance with Private and Type III Public Drinking Water Supply components of the *Michigan Department of Environmental Quality, Minimum Program Requirements for Cost Shared Services, Drinking Water Supply, October 1, 1996*. Compliance with MPRs determines eligibility of the LHDs to participate in Local Health Department Operations Contracts administered by the DEQ, WB, to receive state funding. Throughout this section, “shall” means a required or mandated activity and “should” refers to a recommended activity.

The evaluation consists of two major components:

1. **Office Component** - Review of the LHD and the DEQ files combined with an interview with the EHD and/or staff.
2. **Field Component** - Inspection of recently completed water system and well drilling sites to determine the degree of compliance with the State Well Code.

The DEQ, DWEHS, WCU, maintains files of correspondence received from the LHDs. A data base of the LHD quarterly reports is also maintained. These files must be reviewed by the **Evaluator** before conducting the LHD evaluation

Following each MPR (or subpart of an MPR) within this document the following components are listed:

Indicator - Activity or documentation prescribed as demonstrating conformity with the MPRs as established in the *Michigan Department of Environmental Quality, Minimum Program Requirements for Cost Shared Required Services, Drinking Water Supply, October 1, 1996*.

LHD Activities - Furnishes guidance to the LHD and the **Evaluator** about the types of activities expected to be performed by the LHD to satisfy the MPRs.

Evaluation Factors - Furnishes guidance to the **Evaluator** and the LHD on how to assess compliance with the MPRs and Indicators.

Minimum Program Requirement #5(a)

"The local health department shall maintain water well records submitted by well drillers and property owners who install their own well."

Indicator:

Evidence of a water well record filing system or computerized ground water data base.

LHD Activities:

The computerized water well record data base or paper water well record files shall be maintained to allow for easy retrieval, and a method shall exist for recording and/or tracking the following data:

1. The total number of wells drilled in the county per calendar year.
2. The date the water well record was received from the Contractor.

Date of receipt stamps should be placed on the paper water well record or entered into a computerized database by the LHD.

Evaluation Factors:

The **Evaluator** assesses the MPR compliance by reviewing the water well record tracking system. The LHD should demonstrate to the **Evaluator** how records of the number of water wells drilled annually are maintained and how the date of receipt is recorded and tracked.

Minimum Program Requirement #5(b)

"The water well records shall be reviewed for timeliness, completeness, and accuracy upon receipt."

Indicator:

The technical staff reviews the water well records for timeliness, completeness, and accuracy before filing.

LHD Activities:

The LHD technical staff shall review the paper water well records before final filing or entry into the computerized data base. Water well records submitted electronically by *WELLOGIC shall be authenticated by the LHD. Review of the water well records should include determination of whether:

1. The water well record was received within 60 days of well completion.
2. Any crucial information (depth, formations, well location, contractor's name, etc.) has been omitted or is inaccurate.
3. The record contains accurate well location information (township name, town/range numbers, section number, street address, etc.)
4. The water well construction details meet the State Well Code and permit conditions.

Evaluation Factors:

The **Evaluator** shall review the routing path from the receipt to filing of the water well records and procedures for the water well record review. The LHD staff should understand practical applications of well record data and be familiar with Wellogic (and the authentication process), Water Well Viewer, and methods for retrieving electronically submitted water well records.

** Wellogic is the internet-based data entry program developed by the state of Michigan to provide an easy method for water well drilling contractors to submit well records electronically.*

Minimum Program Requirement # 5(c)

"Faulty records shall be returned to drillers and property owners for correction."

Indicator:

Documentation that water well records, which are not accurate or complete, are returned to the driller for additional information.

LHD Activities:

The LHD shall maintain a record when incomplete or inaccurate water well records are returned to a contractor for completion. The record shall note the nature of the deficiency. It is also acceptable if the LHD staff corrects deficient water well records without returning them to the contractors.

The LHD must have a mechanism for tracking water well records that are returned to contractors to assure that records are completed and resubmitted. A procedure should exist for separating resubmitted water well records so they are not counted twice.

Evaluation Factors:

Evaluator should determine if deficient water well records are being returned to the Contractors. Copies of transmittal letters sent to the contractors should be available for inspection.

Water well records that have been submitted within the past year should be reviewed for accuracy and completeness by the **Evaluator**. The number of water well records reviewed shall be determined by using the following chart:

<u>Number of Well Permits Issued Annually</u>	<u>Sample Size</u>
0-250	10
251-500	15
501-750	20
751-1000	25
1001-2000	30
>2000	50

Minimum Program Requirement #5(d)

"Appropriate enforcement action should be taken to obtain well records from contractors and property owners who fail to comply with Section 12707."

Indicators:

Documentation of mailings to the Contractors regarding the need to submit timely water well records.

Correspondence to water well drilling contractors ordering submittal of past due water well records.

LHD Activities:

Contractors who fail to submit water well records shall be ordered by the LHD to do so, pursuant to the provisions of Section 12709 of the PHC and the DEQ, DWPRD, Policy and Procedures DWRP-03-010, dated January 1, 1999. The DEQ has provided the LHDs with the above policy, which contains sample correction orders.

The LHD water well drilling contractor files shall contain documentation of compliance and enforcement activities (correction orders, reinspection reports, etc.)

If a contractor fails to comply with a correction order, the LHD files shall demonstrate that at least one of the following escalated enforcement steps have been taken:

1. The LHD referral of the matter to the local prosecuting attorney, follow-up letter from prosecuting attorney to Contractor, or evidence of prosecution or injunctive action.
2. Issuance of a citation and civil monetary penalty authorized by local ordinance.
3. The LHD preparation of a draft Notice of Intent to Revoke Registration and submittal to the DEQ for review and processing.

Evaluation Factors:

The LHD files should contain copies of letters issued under Section 12709 of the PHC and other correspondence related to water well record filing compliance. If the LHD does not routinely send copies to the DEQ, it shall have correspondence file(s) available for the **Evaluator's** inspection. However, the LHDs are encouraged to send copies of all enforcement letters to the DEQ, WCU.

Minimum Program Requirement #5(e)

Section 12707 of 1978 PA 368, requires LHDs to submit Geological Survey copy of the water well record (white copy) to the DEQ, WCU within 30 days of receipt.

LHD Activities:

The LHD shall send the white paper copies of the water well records to the DEQ, DW&EHS, WCU, within 30 days of receipt, except where the contractor submitted the water well record using Wellogic or the LHD enters the water well record into Wellogic. The LHDs shall **not** submit water well records to the DEQ via facsimile machine.

Evaluation Format:

The LHD shall demonstrate to the **Evaluator** how water well records are forwarded to the DEQ in a timely manner pursuant to Section 12707 of the State Well Code.

Minimum Program Requirement #6(a)

"The local health department shall have a Private Ground Water Supply Program which includes...a notification procedure or a permit program, established by a locally adopted ordinance, that requires licensed well drillers or property owners to notify the local health department of the intent to construct a water well."

Indicator:

Local ordinance requiring persons to obtain permits or notify the LHD before the installation of a water well.

LHD Activities:

The implementation of a local regulatory program to oversee construction of water wells is required. The program shall include notification to the LHD of the intent to drill a water well.

This allows the LHD to evaluate the drilling site before drilling begins, thereby reducing the public health risks associated with improper placement of water wells. The notification gives the LHD an opportunity to inform the owner or contractor of:

1. Water quality or quantity problems in the vicinity of the proposed water well drilling site.
2. Water sampling requirements and recommendations.
3. Special well construction practices, if needed, to ensure a safe drinking water supply.

Having the water well owner or the Contractor notify the LHD of the proposed date and time of drilling (predrilling notification), gives the LHD sanitarians the opportunity to conduct random, unannounced inspections during water well construction. While the LHDs may not be able to inspect every water well during drilling, the potential of being inspected results in better State Well Code compliance by the Contractors. DEQ advises that LHDs incorporate predrilling notification into their permit programs.

If the LHD adopts an ordinance that requires notification before drilling, but does not require the issuance of a permit, the LHD shall provide the owner with at least the following materials before the water well construction begins:

1. Information on water sampling requirements, additional recommended water sampling, water well record filing, and State Well Code provisions.
2. Notification of the need for special water well construction features (e.g., well depth or minimum casing length) due to unique site conditions.

Evaluation Factors:

Compliance with MPR #6a shall be demonstrated by the **Evaluator** reviewing a copy of the locally-adopted ordinance. The ordinance must include:

1. Evidence of legal adoption.
2. Effective date of ordinance.

3. A requirement for notification by the owner or Contractor before beginning water well construction, or issuance of a permit by the LHD before beginning water well construction.

The DEQ, WCU, has current copies of many local well ordinances. The **Evaluator** may determine compliance status with R 325.1612 (g) of the Michigan Water Well Construction and Pump Installation Code to ensure that the LHD has filed a copy of the regulations with the DEQ.

Minimum Program Requirement #6(b)

"The local health department shall have a Private Ground Water Supply Program which includes...field monitoring of well and pump installations and code enforcement activities needed to obtain compliance with applicable state and local regulations."

Indicators:

Documentation demonstrating the installation of private and public water supplies by registered Contractors.

Documentation of the completion of predrilling site reviews (office review or field inspection) of all proposed water well drilling sites and completion of final inspections of a minimum of 10 percent of all new water wells to ensure compliance with the State Well Code.

Documentation of deviations being issued pursuant to the provisions of the State Well Code.

Documentation of correction orders issued and follow-up inspections when construction deficiencies are identified.

Minimum Program Requirement #6(b) continued

Well Permits

LHD Activities:

Water well permits and other documents attached to the permits shall be available to show evidence of the timely completion of the following activities:

1. Predrilling site reviews.
2. Random construction inspections, where performed.
3. Final inspections.

Permit documentation shall include the following information:

1. Name of the LHD employee(s) who performed the field inspection(s).
2. Date(s) of inspection(s).
3. Results of the inspection(s) (Predrilling Site Reviews, Random Construction Inspections, and Final Inspections).

Evaluation Factors:

The **Evaluator** shall review a sample of recently issued permits to determine if the appropriate information is contained on the permits.

Minimum Program Requirement #6(b) continued

Predrilling Site Review

A **Predrilling Site Review** is the proactive phase of the well permitting process that assesses the proposed water well drilling site, **before** drilling is started, to determine if:

1. There is a likely potential to encounter a water quality or quantity problem.
2. The water well site is near a known potential source of ground water contamination.
3. An "institutional control" established under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, is in effect in the vicinity of the water well.
4. Plat restrictions or restrictive covenants addressing minimum water well depth or other water well construction features are in place.
5. The water well location complies with minimum isolation distance requirements as specified in the State Well Code.
6. The water well will be accessible for maintenance.
7. The proposed water well will be constructed by a registered Contractor (or the property owner).

LHD Activities:

A **Predrilling Site Review** shall be performed for each water well before the permit has been issued. A **Predrilling Site Review** consists of an office component, field component, or a combination thereof (at the discretion of the LHD). Sites where replacement wells are proposed should receive a **Field Predrilling Site Review**.

Office Predrilling Site Review consists of, but is not limited to, a review of the following factors:

1. A detailed site plan showing the location of the proposed water well, distances from the water well to contamination sources (e.g. septic systems, sewer lines, fuel or chemical storage tanks, animal feedlots, pesticide application areas, etc.), buildings, roadways, and property lines. Sources of contamination on adjacent parcels, if known, must be included. A sample detailed site plan is found in Section 10 of this manual.
2. Deed restrictions or restrictive covenants.
3. Water well records.
4. Land use limitations such as institutional controls.
5. Contaminant source inventories.
6. Hydrogeological studies (if submitted by the permit applicant).

Technical staff should complete the **Office Predrilling Site Review Checklist** (see enclosed).

Field Predrilling Site Review consists of the same components as an **Office Predrilling Site Review**, except that an on-site assessment of the proposed water well site is made to verify the site plan details. Technical staff should complete the **Field Predrilling Site Review Checklist** (see enclosed).

Evaluation Factors:

The **Evaluator** shall review the LHD's **Predrilling Site Review** practices to help ensure that appropriate factors are considered before water wells are drilled and to prevent State Well Code violations from occurring. The **Evaluator** should check the DEQ Quarterly Reporting Data Base to find out if the LHD is reporting **Predrilling Site Reviews** at the required level.

Minimum Program Requirement #6(b) continued

Random Construction Inspections

The DEQ recommends that the LHDs conduct **Random Construction Inspections** during the water well construction operations. This helps ensure that the LHD technical staff stay knowledgeable of water well construction field practices and assists with monitoring of water well grouting practices, water well development methods and disinfection procedures, and other State Well Code requirements. Unannounced field inspections deter violation of the State Well Code.

LHD Activities:

At least one **Random Construction Inspection** is recommended annually on each registered Contractor operating within the county. The LHD technical staff should complete the **Random Well Construction Inspection Checklist** (*see enclosed*), or an equivalent, during each **Random Construction Inspection**.

Evaluation Factors:

The **Evaluator** should review water well permits and **Inspection During Well Construction Checklists** for each **Random Construction Inspection** completed during the last 6 months.

Minimum Program Requirement #6(b) continued

Final Inspections

A **Final Inspection** is an on-site assessment of a newly completed water well/pump system to determine if:

1. The water well location and visible components of the well and water supply system comply with the State Well Code and local water well permit conditions.
2. Abandoned wells have been plugged.

A **Predrilling Site Review** and **Random Construction Inspection** (made during well construction) are not **Final Inspections** because they occur before the water system is completed.

The *minimum* items checked and activities performed during a **Final Inspection** are:

1. Water well location to ensure adequate separation from contamination sources.
2. Casing termination method (pitless adapter, well house, basement offset) and well cap.
3. Visual check of sealing of annular space surrounding the water well casing.
4. Water system component materials (water well casing, water service line, etc.)
5. Pump installation (pump, pressure tank, piping, sample tap, valves, and controls).
6. Collection of bacteriological water sample (by owner or owner's authorized representative) and nitrate/partial chemical analysis is recommended.
7. Plugging abandoned water wells at replacement water well sites.

Contractor generated affidavits, where the responsibility for determining State Well Code compliance rests with the regulated industry, cannot be used to satisfy **Final Inspection** requirements.

LHD Activities:

Final inspections shall be performed on a minimum of 10 percent of the new water supply systems installed annually. **Final inspections** should be arranged so that at least one water supply system installed by each Contractor gets inspected annually. **Final Inspections** should also be distributed so that both new water wells and replacement water wells are evaluated. It is preferable to complete **Final Inspections** before the water supplies are placed into service. To minimize exposure to potential health risks, all **Final Inspections** should be completed within 30 days following notification that the water supply installation is completed.

If code violations are frequently observed while performing **Final Inspections**, increasing the rate of **Final Inspections** can bring about improved compliance. Sanitarians should complete the ***Water Supply Final Inspection Checklist*** (see enclosed), or an equivalent, for each **Final Inspection**.

Evaluation Factors:

The **Evaluator** shall review the LHD's **Final Inspection** practices to ensure that appropriate components are inspected. The **Evaluator** should review the DEQ Quarterly Reporting Data Base to find out if the LHD is reporting **Final Inspections** at or above the minimum required level. The **Evaluator** should review water well records and ***Water Supply Inspection Checklists*** (or equivalent forms) to ensure adherence with minimum **Final Inspection** criteria.

Minimum Program Requirement #6(b) continued

Bacteriological Sampling

Rule 161 (R 325.1661(2)) of the state well code requires that "Before placing a new, repaired, or reconditioned water supply system into service, and after all traces of chlorine have been flushed out, 1 or more water samples shall be collected from the sampling faucet. Organisms of the coliform group shall not be present in the sample or samples."

Bacteriological sampling requirements for Type III public water supplies are addressed in R 325.10831 of the Michigan Safe Drinking Water Act. (Not less than two consecutive bacteriologically safe samples are required).

Bacteriological sampling requirements apply to all water supply systems, not just where final inspections are performed.

LHD Activities:

It is preferred that water samples be collected by the well drilling/pump installation contractor or by LHD personnel. However, the results of water samples collected by water well owners or others may be accepted by the LHD if standard sampling and sample transport protocol are followed. The LHD personnel should promptly follow up on positive coliform bacteria results, especially when E. coli are detected.

If the LHD has not been furnished with satisfactory water sample results after notifying the owner of the need for water sampling, the LHD shall issue a **Nonapproval** or a **Notice of Construction Acceptance (NCA)** (as described on page 3-17 of this manual) as a means of closure of bacteriological sampling compliance efforts.

Evaluation Factors:

If either of the following conditions are identified by the Evaluator, the LHD will be deemed in noncompliance with MPR#6:

1. New water supply systems with positive coliform bacteria test results are placed into service without due notice to the building occupants pursuant to Rule 173 (R 325.1673) of the State Well Code. (Note: The **Nonapproval**, described on page 3-17 of this manual, is a means of providing notice under R 325.1673).
2. New water supply systems are being placed into service without being tested for coliform bacteria and a **Nonapproval** or **NCA** is not issued.
3. The LHD does not notify the well owner in writing of the need to obtain satisfactory bacteriological sample(s) before placing the water system into service.

Minimum Program Requirement #6(b) continued

Water Supply System Approval

An **Approval** is a communication (letter, inspection tag, finalized permit, or other document) to the water well owner from the LHD that the newly completed water system is suitable for the intended use. If the minimum criteria for issuance of an **Approval** cannot be attained, a **Nonapproval** shall be issued. A **Nonapproval** shall cite the reason(s) for not approving the water supply system.

LHD Activities:

LHDs should strive to issue **Approvals** for all new water supply systems. All permits shall be closed either by issuance of an **Approval** or **Nonapproval** to the water well owner by the LHD.

The flowcharts found in Section 10 of this manual should be used to determine whether an **Approval** or **Nonapproval** is appropriate. Refer to example letters #1-6 for suggested approval and nonapproval notices. (These documents are pages 10-10 through 10-17 in Section 10.)

Evaluation Factors:

An LHD will be considered in noncompliance with MPR #6(b) if:

1. New water systems are routinely allowed to be placed into service without the issuance of a water supply system **Approval**.
2. The LHD does not routinely issue a **Nonapproval** to water well owners after it is determined that the criteria for water supply system **Approval** have not been met.

Minimum Program Requirement #6(b) continued

Contractor Registration

LHD Activities:

To ensure that wells are drilled by Michigan registered Contractors, the LHD staff should review the following:

1. Contractor names on water well permit applications.
2. Inquiry to the owner at the time of the notification.
3. Section 15 on the water well record form (Water Well Contractor's Certification) to locate contractor name and registration number.

The current Directory of Michigan Registered Water Well Drilling and Pump Installation Firms, is located on the DEQ website at www.michigan.gov/deq. This site, which is updated two times a year, can be used to verify contractor registration.

Another option is to check the LHD water well driller files for current registration status. When the DEQ sends certificates of registration annually to contractors, copies of the correspondence are sent to the LHD in which the contractor's business is located. The LHD field staff may ask to see a registration certificate when unfamiliar contractors are encountered afield.

Evaluation Factors:

The LHD should be able to demonstrate to the **Evaluator** that:

1. A mechanism is used to routinely check Contractor registration status.
2. A mechanism is in place to prevent drilling of water wells by unregistered individuals.

Minimum Program Requirement #6(b) continued

Code Enforcement Activities

LHD Activities:

Enforcement procedures should follow the DEQ Handout: **Suggested Well Code Enforcement Procedures** (see enclosed), or an equivalent.

Copies of correction orders issued by the LHD pursuant to Section 12709 of the PHC and documentation related to prosecution, civil fines, or other escalated enforcement actions should be sent to the DEQ, DWEHS, WCU, in a timely manner.

Evaluation Factors:

If an enforcement protocol other than the DEQ Handout: **Suggested Well Code Enforcement Procedures** is used, the **Evaluator** should obtain a copy. Adherence to suggested enforcement procedures (or an equivalent) shall be demonstrated by the LHD.

Minimum Program Requirements #6(c)

"A process (regulation, statute, informal agreement, or field inspection) shall exist to identify unplugged abandoned wells on sites where replacement wells are drilled or where connections to municipal water supplies are made and to assure that the plugging methods used are in compliance with state and local regulations."

Indicator:

Use of water well permits for notifying owners of the need to plug abandoned water wells on replacement well sites.

Documentation demonstrating proper plugging of abandoned water wells when a replacement well is drilled or when a dry hole is encountered or when the facility has connected to a municipal/public water supply.

LHD Activities:

To ensure that abandoned wells are properly plugged by Michigan registered well drilling contractors (or well owners, where allowed by law), the LHD staff should perform the following program activities:

1. Replacement Well Sites:
 - a. Include an abandoned well plugging advisory statement on replacement water well permits.
 - b. Verify and document that the existing water well was either properly plugged or is operational when "final inspections" are conducted.
2. Dry Hole Sites:
 - a. Verify that dry holes are reported by the drilling firm on water well records or abandoned well plugging records.
 - b. When conducting "final inspections" or other site inspection activities, verify, to the extent possible, that dry holes have been properly plugged.
3. Waterline Extension Sites:
 - a. Maintain a file for municipal waterline extension or installation permits received from DEQ.
 - b. After receipt of a waterline extension or installation permit, a follow-up letter (refer to Abandoned Well Management Guidance Manual) shall be sent to the affected water utility by the LHD, advising the water utility to furnish DEQ abandoned well brochures (or equivalent) to well owners who connect to the municipal water service.
 - c. Obtain abandoned well brochures or other outreach materials from DEQ as needed.

4. Demolition Sites:
 - a. Encourage local building permit authority to incorporate abandoned well plugging mandate into permit review/occupancy approval process on sites where buildings served by on-site wells are demolished.
5. The Abandoned Well Management Program Guidance Manual shall be used as a guide to implement abandoned water well activities.
6. Conduct enforcement actions where abandoned well owners fail to comply with plugging requirements on replacement well sites, demolition sites, and where dry holes are not properly plugged.

Evaluation Factors:

The LHD should be able to demonstrate to the **Evaluator** that:

1. During the water well record review process, abandoned water well plugging records are evaluated for conformity with materials, methods, contractor registration, requirements of the state well code.
2. A notification mechanism is in place for identifying potential abandoned water wells created at the time of connection to municipal water service. This is evidenced by copies of municipal water extension or installation permits and associated follow-up letters retained in a dedicated file.
3. Field inspections and enforcement activities associated with abandoned well management, if performed, are documented and show compliance with the state well code.
4. An Abandoned Well Management Program Guidance Manual is available.

Minimum Program Requirement #7(a)

“The local health department shall investigate, or assist MDEQ in the investigation of all known or suspected cases of drinking water well contamination...”

Indicators:

Documentation that water samples are collected for known or suspected cases of water well contamination.

Documentation that state agencies are assisted in the investigation of potential ground water contamination sites.

LHD Activities:

The LHD shall initiate an investigation or consultation when water quality concerns or problems are received from the general public, consultants, the U. S. Environmental Protection Agency (USEPA), the Michigan Department of Agriculture (MDA), or the DEQ staff. Water quality concerns and problems include, but are not limited to, microbiological, manmade chemicals, heavy metals, nitrates and nitrites, turbidity, taste, and odor. The LHD may contact the DEQ, Drinking Water and Environmental Health Section, Contamination Investigation Unit (CIU) staff for assistance and guidance in the investigation.

The LHD shall participate in the "Long-Term Monitoring" (LTM) program, which is Appendix B of the Contract between the DEQ, DWEHS, and the LHD, pending availability of state funding.

The LHD shall maintain files for each site of known and suspected drinking water contamination. The files should contain all relevant correspondence, including advisory letters and analytical results sent to drinking water well users, along with land use limitations such as institutional control, restrictive covenants, deed restrictions, and other land use controls.

Evaluation Factors:

The **Evaluator** can assess compliance by:

1. Reviewing the files for the sites of drinking water well contamination.
2. Discussion with the CIU staff working with the LHD to determine the level of cooperation in investigation of known or suspected cases of drinking water well contamination and compliance with the LTM.

Minimum Program Requirement #7(b)

“The LHD...shall issue health advisories when appropriate, shall maintain a record of sites of known or suspected ground water contamination and make such information available to the well drilling industry and the public.”

Indicators:

Documentation of health advisory letters sent to all residents involved in the drinking water quality investigations.

Presence of graphic information depicting known or suspected ground water contamination sites within the local jurisdiction, and documentation showing that a current map or listing of ground water contamination site locations is available to Contractors and other interested parties.

Listing of ground water contamination sites used to assess contamination potential of proposed water wells.

LHD Activities:

The LHD shall send written notification of the issuance of a health advisory to the property owner when the drinking water contaminant exceeds the Maximum Contaminant Level (MCL) established by the USEPA or the Generic Residential Cleanup Criteria (GRCC) for ground water established under the NREPA.

The LHD shall maintain an active inventory of known or suspected ground water contamination sites. The inventory shall be depicted in such a format as to make site location information readily available to staff, Contractors, and other interested parties.

Lists of sites of environmental contamination are found on the website for the Remediation and Development Division of the DEQ. A statewide graphic depiction of the lists is available at www.mcgi.state.mi.us/environmentalmapper. The Michigan Environmental Mapper allows the user to search sites by city, county or DEQ district.

The inventory shall be reviewed by the LHD staff before issuance of water well permits to determine if sites where water wells are proposed to be drilled are within or near a known ground water contamination site. The LHD should have a procedure to evaluate the vulnerability of a proposed water supply well that is near a site of known ground water contamination. Permits, or other equivalent means, should be used to:

1. Restrict drilling of water wells in certain contaminated areas.
2. Require special water well construction features where necessary.
3. Provide health advisory or other information to the water well owner/Contractor.

The LHD shall communicate periodically with the DEQ, Department of Agriculture, and other appropriate sources for the purpose of maintaining a current listing of contamination sites.

Evaluation Factors:

The **Evaluator** should determine if health advisories have been issued in areas of known ground water contamination where the level of contamination exceeds the maximum contaminant level (MCL) or generic residential clean-up criteria (GRCC).

Compliance may be demonstrated by comparing agency inventories with the LHD inventory. The LHD inventory must be as inclusive as those maintained by the state agencies.

Approval of a water well construction permit within a known contamination area or within the isolation distance surrounding a contamination site, without appropriate deviation or limiting factors is an indicator of noncompliance.

Minimum Program Requirement #8

“The local health department shall investigate, with technical assistance from MDEQ where appropriate, all written well driller/customer and drinking water complaints.”

Indicators:

Documentation that all complaints are investigated promptly and properly.

Documentation is available supporting investigation findings, corrections, and recommendations.

LHD Activities:

Complaints involving water well issues should be investigated within 30 days of receipt. The DEQ has provided the LHDs with complaint investigation and documentation protocol, including a sample complaint form and inquiry/response letters. Additional copies can be obtained from the DEQ, DWEHS, WCU. Use of the protocol helps assure that investigation findings, corrections, recommendations, and methods of resolution are adequately documented.

Complaints should be filed either in the file of the registered Contractor against whom the complaint was filed, or in a separate water well complaint file. The DEQ advises the LHD to send copies of the correspondence relating to complaint investigations to the DEQ. The LHD should have a mechanism for tracking complaints to promote prompt investigation and resolution.

Evaluation Factors:

The LHD should demonstrate that the DEQ complaint investigation protocol, or an equivalent process, is used to investigate and document complaints. Documentation of the method of resolution of the complaints shall be included with the complaint. The **Evaluator** should review complaints to determine if:

1. They are handled using technically sound investigative methods in a satisfactory manner.
2. Code violations discovered during the investigation are corrected in a prompt manner.
3. Technically sound investigative methods are used by the LHD staff.

When the LHD receives an excessive number of complaints against a particular Contractor, and administrative action against the Contractor’s registration certificate is warranted, the WCU shall be notified in writing by the LHD.

FIELD COMPONENT OF DEQ EVALUATION

The field component of the evaluation involves conducting inspections of a sample of newly completed water supply systems and other field activities. The purpose of the field component is to assess the following:

1. Well code compliance.
2. How accurately the LHD documentation reflects field conditions.
3. The LHD well inspector knowledge of state well code.

The LHD may elect to have an LHD well inspector accompany the **Evaluator** during completion of the field inspections. It is preferred that the inspector who performed the final inspection accompany the **Evaluator** in the field. In order to complete inspections of a statistically significant sample of new water wells, it may be necessary to schedule additional field time outside of the formal evaluation period.

Water System Inspections

The **Evaluator** may randomly select sites for the field inspection. Random field inspections shall include both water systems that received final construction inspections by the LHD and systems for which a permit was issued, but a final inspection was not performed. Sites selected for field inspection, where the LHD completed a final inspection, shall be selected from the files of water well permits completed within the past year. Sites selected for field inspection, where the LHD did not complete a final inspection, shall be selected from the files of water well records completed within the past year. The number of field inspections shall be determined by the evaluator during the record review. Sites selected for field inspection should be geographically distributed around the county or district, and should reflect water supply systems that were inspected by different LHD employees and installed by different Contractors.

Type III Public Water Supplies

A Type III public water supply is a waterworks system that provides water for drinking or household purposes to persons other than the supplier of water that is not a community supply (Type I), noncommunity supply (Type II), or a waterworks system that supplies water to only one living unit. Therefore, if the water supply does not serve a typical private single family dwelling, but serves water to fewer than 15 living units and less than 25 people on an average daily basis less than 60 days per year, it is classified as a "Type III" public water supply.

Type III public water supply construction is regulated by the Safe Drinking Water Act, 1976 PA 399, as amended (SDWA). Through adoption by reference in R 325.10804 (Rule 804) of the SDWA, most provisions of the State Well Code apply to Type III public water supplies.

Except for isolation distances from a contamination source and initial sampling requirements, the minimum construction standards for Type III public water supplies are the same as those for private single-family dwellings.

Isolation Areas

Rule 808 of the SDWA establishes the standard isolation area from existing or potential contamination sources, such as storm and sanitary sewers, pipelines, septic tanks, drainfields, dry wells, cesspools, seepage pits, leaching beds, barnyards, surface water, or an area or facility from which contamination of the ground water may occur, as a 75-foot radius in all directions from a Type III well.

Rule 812 of the SDWA requires a Type III water well to be a minimum of 800 feet from known major sources of contamination, including, but not limited to, large-scale waste disposal sites, land application of sanitary wastewater or sludges, sanitary landfills, and chemical or waste chemical storage or disposal facilities. Based on hydrogeological studies, the LHD may require an increase or allow a decrease in the 800-foot distance.

Water Sampling

Rule 831 of the SDWA requires that before placing a new or reconditioned Type III water well or a water well facility that is opened for maintenance or inspection into service, not less than 2 consecutive water samples for bacteriological analyses be collected from the installation and each analysis shall not indicate the presence of coliform.

Rules 710(2), 716(2), and 831(2) of the SDWA authorize the LHDs to require sampling for contaminants other than coliform bacteria. The DEQ advises that as a minimum, a standard partial chemical analyses should be collected from all new Type III water supplies. More extensive chemical sampling should be performed for new water wells installed near ground water contamination sites or areas with naturally-occurring contaminants.

Applicable Statutes and Rules

The following statutory and regulatory provisions from the SDWA specifically apply to Type III public water supplies:

- R 325.10502 Classification of public water supplies.***
- R 325.10506 Type III public water supplies generally.***
- R 325.10704 Collection and analysis of samples for coliform bacteria generally.***
- R 325.10710 Collection and analysis of samples for inorganic chemicals.***
- R 325.10716 Collection and analysis of samples for VOCs.***
- Part 8. Groundwater Sources – R 325.10801 to R 325.10831.***

The LHD staff should be familiar with these regulations, in addition to the applicable provisions of this manual, to ensure that Type III public water supplies are appropriately handled in the permitting/inspection process.

SECTION 4

Self Assessments

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
DRINKING WATER & ENVIRONMENTAL HEALTH SECTION

***Guide for Completion of
Local Health Department Self Assessment for
Private and Type III Public Water Supply Program
(DEQ, WB Form EQP 2094)***

The Well Construction Unit routinely receives questions from local health departments who are completing their Self Assessment Form EQP 2094. The following information addresses those commonly

Calendar Year

Records from January through December of the current calendar year shall be reviewed.

Field Monitoring

An actual field review is encouraged, but not necessary. Water supply final inspection reports shall be reviewed.

Sample Size

The number of water well records, well permits, or final inspections reviewed shall be determined by using the following chart:

<u>Number of Well Permits Issued Annually</u>	<u>Sample Size</u>
0-250	10
251-500	15
501-750	20
751-1000	25
1001-2000	30
>2000	50

Pre-Drilling Site Reviews

- A. Office Predrilling Site Review** – consists of, but is not limited to, a review of the following factors: a detailed site plan (showing roadways, property lines, and locations of potential sources of contamination), contaminant source inventories, subdivision plat restrictions, etc.

* Office Predrilling Site Reviews should be completed on 100% of the well permit applications.

- B. Field Predrilling Site Review** – consists of the same components as an Office Predrilling Site Review, except that an on-site assessment of the proposed well site is made.

Well Permit Fees

The DEQ periodically gets requests from Local Health Departments for well permit fee data. The annual program evaluation form is a convenient means of gathering the data.



**Michigan Department of Environmental Quality
Water Bureau**

Local Health Department Evaluation Summary

Authorized by 1976 PA 399 and 1978 PA 368, as amended

“Company”

SELF-ASSESSMENT

**Private and Type III Water Supply Program - MPR # 5 – 8
January 2007 – December 2007**

For Your Information:

- Please refer to the “Guidance Manual for the Private and Type III Water Supply Program” for help in completing the Self-Assessment form.
- Written documentation (permits, water well records, letters, etc.) does not need to be submitted with the Self-Assessment form.
- DEQ recommends that program staff provide input when completing the Self-Assessment form.
- Please direct any questions to the DEQ, Well Construction Unit.

Please answer the following:

1. Have there been any changes in internal policy and procedure, local ordinance, etc., with respect to the Private and Type III Public Water Supply Program?

If yes, please attach documentation. Yes No

2. Have there been any new staff in the program? Yes No

Local Health Department Signature

Date

Title

MPR 5: WATER WELL AND ABANDONED WELL PLUGGING RECORDS

WELL RECORD TRACKING AND REVIEW

Number of water well records reviewed by the Evaluator. _____

- 1. Water well record is date stamped or recorded when received. Yes No
- 2. Who tracks 60-day submittal requirement for water well and abandoned well records?
 Sanitarian Secretary Other _____
- 3. Who reviews water well and abandoned well records for accuracy and completeness?
 Sanitarian Secretary Other _____
- 4. DEQ copies of well records are reviewed before forwarding to DEQ. Yes No
- 5. Who retrieves the driller submitted records out of Wellogic? _____

WELL RECORD ENFORCEMENT

- 1. Copies of incomplete or inaccurate water well records are returned for correction. Yes No
- 2. Enforcement action taken against water well drilling contractors who fail to submit water well records within 60 days or submit inaccurate water well records. Yes No

Comments (MPR #5):

ABANDONED WELLS AT REPLACEMENT WELL SITES

Number of well records reviewed by the Evaluator. _____

- 1. Abandonment required on replacement water well permits. Yes No
- 2. Plugging materials and methods meet State Well Code. Yes No
- 3. Abandoned Well Guidance Manual available to staff. Yes No
- 4. Percent abandoned wells plugged at replacement well sites. _____ %

ABANDONED WELLS AT WATERLINE EXTENSION SITES

Number of records reviewed by the Evaluator. _____

- 1. File available for DEQ Type I waterline installation permits. Yes No
- 2. Record of outreach material provided to water utility after receiving DEQ Type I permit notification. Yes No

CORRECTION ORDERS FOR WELL CODE VIOLATIONS

- 1. Number of correction orders reviewed by the Evaluator. _____
- 2. Written correction orders issued for State Well Code violations. Yes No
- 3. How are correction orders and follow-up inspections tracked? _____

- 4. Copies of correction orders sent to the DEQ, Well Construction Unit. Yes No
- 5. State Well Code correctly interpreted and applied. Yes No

FIELD MONITORING (Based on review of water supply final inspection reports)

Number of inspections reports reviewed _____

- 1. Required water samples collected. Yes No
- 2. Water well location/isolation proper. Yes No
- 3. Wellhead construction proper. Yes No
- 4. Grouting acceptable (field observation/record review). Yes No
- 5. Water system equipment acceptable. Yes No
- 6. Abandonment completed. Yes No
- 7. Site diagrams accurate. Yes No

Comments (MPR #6):

MPR 7: GROUND WATER CONTAMINATION

INVESTIGATION AND MONITORING

1. Initiate or assist DEQ in the investigation of known or suspected groundwater contamination. Yes No
2. Files maintained for groundwater contamination sites. Yes No
3. Participate in a DEQ long-term monitoring program. Yes No
If yes, in compliance with sampling schedule? Yes No
4. DEQ Notices of Migration reviewed. NA Yes No

PUBLIC INFORMATION

1. Current listing and/or maps of contamination sites available. Yes No
2. Date information was last updated. _____
2. Health advisories issued to water well owners when water quality or potential contamination threatens public health. Yes No

ISSUING PERMITS IN CONTAMINATION AREAS

1. Policy/procedure exists. Yes No
2. Contamination sites reviewed before issuing water well permits. Yes No
3. Water well construction stipulations used in areas of known or suspected groundwater contamination. Yes No

WATER SAMPLE RESULTS

1. Number of coliform/E. coli positive results checked by evaluator. _____
2. Prompt follow-up conducted on coliform/E. coli positive bacteriological water samples. Yes No
3. Follow-up on chemical contaminant exceeding health advisory levels. Yes No
4. Water sample results retained in a file or database Yes No

Comments (MPR #7):

MPR 8: COMPLAINT INVESTIGATION

Number of complaint records reviewed by the Evaluator. _____

1. Complaint forms are available to the public. Yes No
2. Complaints against contractors are investigated. Yes No
3. Initiate or assist the DEQ in the investigation of water quality complaints. Yes No
4. Follow-up documented for all complaint investigations. NA Yes No
5. Complaint investigation conclusions technically sound and consistent with State Well Code. Yes No

Comments (MPR #8):

DO NOT WRITE BELOW THIS LINE - DEQ USE ONLY

EXPLANATION OF STATUS

The Private and Type III Public Water Supply Program Evaluation has been evaluated for compliance with Minimum Program Requirements (MPRs) using the Self-Assessment form. All MPRs must be met to obtain an overall satisfactory rating.

SATISFACTORY = all MPRs are being met

UNSATISFACTORY = not all MPRs are being met

<i>MPR Number</i>	<i>Status</i>
<i>Private and Type III</i>	<i>Circle one</i>
MPR #5	YES NO
MPR #6	YES NO
MPR #7	YES NO
MPR #8	YES NO

OVERALL PROGRAM STATUS

Agency does does not
meet all MPRs in the
Private and Type III Water Supply Programs.

Evaluator Name
DEQ Well Construction Unit

Date

SECTION 6

Quarterly Reporting

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
DRINKING WATER & ENVIRONMENTAL HEALTH SECTION

***Guide for Completion of
Local Health Department Quarterly Reports for
Private and Type III Public Water Supply Program
(DEQ, WD Form EQP 2057[3])***

Data requested on Form EQP 2057(3) is to be submitted to the Department of Environmental Quality (DEQ), Water Division, Groundwater Section, on a monthly or quarterly basis, within 15 days of the end of each month or fiscal year quarter. Reporting is a prerequisite for receiving payment under the provisions of the annual Local Health Department Operations Contracts.

Reporting Period

1st Quarter – October/November/December
2nd Quarter – January/February/March
3rd Quarter – April/May/June
4th Quarter – July/August/September

Filing Deadline

January 15
April 15
July 15
October 15

Reporting Parameter Definitions

1. **Well Permit** – a document authorizing the construction of a water well/pump system regulated under Part 127, 1978 PA 368, as amended (State Well Code), which is issued before beginning well construction and is authorized by a locally adopted ordinance. For agencies with predrilling notifications in lieu of well permits, “notifications” should be reported as well permits.
2. **Predrilling Site Review** – the part of the well permitting process that assesses the proposed well drilling site **before** drilling is started, to determine if:
 - There is a likely potential to encounter a water quality or water quantity problem.
 - The well site is near a known potential source(s) of ground water contamination.
 - An “institutional control” established under Part 201, 1994 PA 451, is in effect in the vicinity of the well.
 - Plat restrictions addressing minimum well depth or other construction features are in place.
 - The well location complies with minimum isolation distance requirements as specified in the State Well Code.
 - The well will remain accessible for maintenance.

A Predrilling Site Review consists of an office component, a field component, or a combination thereof (at the discretion of the local health department).

A. Office Predrilling Site Review – consists of, but is not limited to, a review of the following factors:

- 1) A detailed site plan submitted by the permit applicant, showing the location of the proposed well, distances from the well to contamination sources (septic systems, sewer lines, fuel or chemical storage tanks, animal feedlots, pesticide application areas, etc.), buildings, roadways, and property lines. Sources of contamination on adjacent parcels shall be included.

- 2) Subdivision records and plat restrictions
- 3) Water well records
- 4) Water quality data base
- 5) Contaminant source inventories

B. Field Predrilling Site Review – consists of the same components as an Office Predrilling Site Review, except that an on-site assessment of the proposed well site is made in lieu of the office review of a site plan.

3. **Final Inspection** – a field inspection of a newly **completed** water well/pump system to determine if:
- The well location and visible components of the well and water supply system comply with the State Well Code and well permit conditions, and
 - Abandoned wells have been plugged.

Predrilling Site Reviews and surveillance visits made during well construction are **not** Final Inspections because they occur before the water system is completed.

4. **Final Inspections With Construction Code Violations Observed** – Violations include all construction deficiencies and nonsubmittal of water well records. *Do not include minor water well record data completion errors or omissions.*
5. **Approvals** – Communications (via letter, inspection tag, finalized permit, or other document) to well owner from local health department that the newly completed water well system is suitable for intended use based on the following criteria:
- Compliance with State Well Code requirements and well permit conditions.
 - Water samples demonstrate suitable water quality.
 - Review of water well record.
6. **Violation Notices/Correction Orders** – written notice (e.g., letter or inspection tag) to the well owner or well drilling contractor that a State Well Code violation has occurred, which includes a directive to correct the deficiency.
7. **Corrections Obtained After Violation Notice/Correction Order** – verification through reinspection that a deficiency observed during the final inspection was corrected.
8. **Abandoned Wells Plugged** – total of Abandoned Well Plugging Records and Water Well Records for replacement wells that contain abandoned well plugging data. This includes municipal water connection sites where abandoned wells were plugged.
9. **Escalated Enforcement Action** – any of the following actions after violation notices or correction orders fail to achieve compliance:
- Documented referral of matter to prosecuting attorney or corporate counsel for prosecution or initiation of litigation (restraining order, injunctive relief, complaint, etc.) or letter from prosecuting attorney.
 - Fines or penalties assessed under a local ordinance.



Michigan Department of Environmental Quality
Water Bureau

Drinking Water and Environmental Health Section

Authorized by 1978 PA 368 and 1976 PA 399, as amended

Local Health Department Quarterly Report

Private and Type III Public Ground Water Supply Program

The following data shall be reported to the Michigan Department of Environmental Quality, Water Bureau, by local health departments on a quarterly basis, within 15 days of the end of each quarter within the fiscal year. In order to receive payment, this data must be reported.

Agency: _____ Reporting Period: _____

Person submitting report: _____

	1st	2nd	3rd	4th
1. Number of Well Permits Issued				
2. Number of Predrilling Site Reviews Completed				
3. Number of Final Inspections of Newly Completed Water Well Systems				
4. Number of Final Inspections with Construction Code Violations Observed				
5. Number of Approvals Issued for Newly Completed Water Well Systems				
6. Number of Violation Notices/Correction Orders Issued				
7. Number of Corrections Obtained After Violation Notice/Order Letter				
8. Number of Abandoned Wells Plugged				
9. Number of Escalated Enforcement Actions (Prosecution or Civil Fines)				

1st Quarter = October/November/December

2nd Quarter = January/February/March

3rd Quarter = April/May/June

4th Quarter = July/August/September

Please return completed report to:

WB –DRINKING WATER & ENV HEALTH SECTION
MI DEPT OF ENVIRONMENTAL QUALITY
PO BOX 30273
LANSING MI 48909-7773

Completed forms may be submitted by FAX to 517-241-1328

SECTION 7

LHD Evaluation Action Plan



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
DRINKING WATER AND ENVIRONMENTAL HEALTH SECTION

LHD EVALUATION ACTION PLAN

Evaluation Results

Action for Next Fiscal Year (FY)

MPR COMPLIANCE FOR
ONE YEAR WITH NO MAJOR
PROBLEM(S) NOTED

SELF-ASSESSMENT
(Not to exceed 2 consecutive
FYs)

OR

REEVALUATION NEXT FY
(Partial office and/or field
component, at **Evaluator's**
discretion)

MPR NONCOMPLIANCE
WITH MAJOR PROBLEM(S)
NOTED

**REQUEST COMPLIANCE
PLAN**
(Compliance deadline end of
first quarter after the DEQ
approval and LHD Compliance
Plan) **REEVALUATION OF
PROBLEM AREA(S)**

MPR REPEATED WITH
SIGNIFICANT
NONCOMPLIANCE

**RECOMMEND TERMINATION
OF FUNDING TO MDCH**
(Request compliance plan –
reevaluate if funding is not
terminated)

SECTION 8

Evaluation Report



Michigan Department of Environmental Quality
Water Bureau

Local Health Department Evaluation Summary

Authorized by 1976 PA 399 and 1978 PA 368, as amended

**Health Department
Private and Type III Water Supply Program - MPR # 5 - 8
Year 2007
(date)**

EXPLANATION OF STATUS

The Private and Type III Water Supply Program Evaluation has been evaluated for compliance with Minimum Program Requirements (MPRs) using the format provided herein. Program status is summarized in this final report. All MPRs must be met to obtain an overall satisfactory rating.

SATISFACTORY = all MPRs are being met

UNSATISFACTORY = not all MPRs are being met

MPR Number Status
Private and Type III

- MPR #5
- MPR #6
- MPR #7
- MPR #8

OVERALL PROGRAM STATUS

Agency does does not
meet all MPRs in the
Private and Type III Water Supply Programs.

Well Construction Unit

Date

MPR 5: WATER WELL AND ABANDONED WELL PLUGGING RECORDS

WELL RECORD TRACKING AND REVIEW

Number of water well records reviewed by the Evaluator. _____

- 1. Water well record is date stamped or recorded when received. Yes No
- 2. Who tracks 60-day submittal requirement for water well and abandoned well records?
 Sanitarian Secretary Other _____
- 3. Who reviews water well and abandoned well records for accuracy and completeness?
 Sanitarian Secretary Other _____
- 4. DEQ copies of well records are reviewed before forwarding to DEQ. Yes No
- 5. Who retrieves the driller submitted records out of Wellogic? _____

WELL RECORD ENFORCEMENT

- 1. Copies of incomplete or inaccurate water well records are returned for correction. Yes No
- 2. Enforcement action taken against water well drilling contractors who fail to submit water well records within 60 days or submit inaccurate water well records. Yes No

Comments (MPR #5):

MPR 6: PERMIT PROGRAM

PERMIT TRACKING

1. Water well permit fees: \$_____ private \$_____ Type III

2. Program used to track permits, water samples, well records, approvals, etc.

3. Policy/procedure manual available and used. Yes No

4. Do well permits expire? Yes No

If yes, how is permit finalized _____

5. Files maintained for each contractor for registration letters, complaints, and other correspondence. Yes No

6. File information easily retrievable. Yes No

7. Predrilling site reviews (PDSR) conducted in _____% office _____% field

WATER SAMPLING ON NEW WELL CONSTRUCTION

1. Water sample submittal requirement on permit. Yes No

2. Water samples collected by. _____

3. Who follows up on nonsubmittal of sample? _____

4. Written notification sent for nonsubmittal of sample. NA Yes No

FINAL INSPECTIONS

1. Percent of final inspections conducted (from previous quarterly report). _____%

2. Final inspection form used (or included on permit). Yes No

3. "As built" drawing on final inspection form or permit. Yes No

WATER SUPPLY APPROVALS

1. Water supply system approvals meet minimum criteria. Yes No

2. Written notices of nonapproval promptly issued. Yes No

3. Written notice of approval promptly issued. Yes No

ABANDONED WELLS AT REPLACEMENT WELL SITES

Number of well records reviewed by the Evaluator. _____

- 1. Abandonment required on replacement water well permits. Yes No
- 2. Plugging materials and methods meet State Well Code. Yes No
- 3. Abandoned Well Guidance Manual available to staff. Yes No
- 4. Percent abandoned wells plugged at replacement well sites. _____%

ABANDONED WELLS AT WATERLINE EXTENSION SITES

Number of records reviewed by the Evaluator. _____

- 1. File available for DEQ Type I waterline installation permits. Yes No
- 2. Record of outreach material provided to water utility after receiving DEQ Type I permit notification. Yes No

CORRECTION ORDERS FOR WELL CODE VIOLATIONS

1. Number of correction orders reviewed by the Evaluator. _____

- 2. Written correction orders issued for State Well Code violations. Yes No
- 3. How are correction orders and follow-up inspections tracked? _____

- 4. Copies of correction orders sent to the DEQ, Well Construction Unit. Yes No
- 5. State Well Code correctly interpreted and applied. Yes No

FIELD MONITORING

Number of site visits conducted by DEQ and local health department _____

- 1. Required water samples collected. Yes No
- 2. Water well location/isolation proper. Yes No
- 3. Wellhead construction proper. Yes No
- 4. Grouting acceptable (field observation/record review). Yes No
- 5. Water system equipment acceptable. Yes No
- 6. Abandonment completed. Yes No
- 7. Site diagrams accurate. Yes No

Comments (MPR #6):

MPR 7: GROUND WATER CONTAMINATION

INVESTIGATION AND MONITORING

- 1. Initiate or assist DEQ in the investigation of known or suspected groundwater contamination. Yes No
- 2. Files maintained for groundwater contamination sites. Yes No
- 3. Participate in a DEQ long-term monitoring program. Yes No
If yes, in compliance with sampling schedule? Yes No
- 4. DEQ Notices of Migration reviewed. NA Yes No

PUBLIC INFORMATION

- 1. Current listing and/or maps of contamination sites available. Yes No
- 2. Date information was last updated. _____
- 2. Health advisories issued to water well owners when water quality or potential contamination threatens public health. Yes No

ISSUING PERMITS IN CONTAMINATION AREAS

- 1. Policy/procedure exists. Yes No
- 2. Contamination sites reviewed before issuing water well permits. Yes No
- 3. Water well construction stipulations used in areas of known or suspected groundwater contamination. Yes No

WATER SAMPLE RESULTS

- 1. Number of coliform/E. coli positive results checked by evaluator. _____
- 2. Prompt follow-up conducted on coliform/E. coli positive bacteriological water samples. Yes No
- 3. Follow-up on chemical contaminant exceeding health advisory levels. Yes No
- 4. Water sample results retained in a file or database Yes No

Comments (MPR #7):

MPR 8: COMPLAINT INVESTIGATION

Number of complaint records reviewed by the Evaluator. _____

- 1. Policy/procedure exists. Yes No
- 2. Complaint forms are available to the public. Yes No
- 3. Complaints against contractors are investigated. Yes No
- 4. Initiate or assist in the investigation of water quality complaints. Yes No
- 5. Follow-up documented for all complaint investigations. NA Yes No
- 6. Complaint investigation conclusions technically sound and consistent with State Well Code. Yes No

Comments (MPR #8):

GENERAL COMMENTS

SECTION 9

Suggested Enforcement Procedures

Contractor Complaint Form

SUGGESTED WELL CONSTRUCTION CODE ENFORCEMENT PROCEDURES

The following procedures are intended to (1) assist local health departments (LHDs) with conducting enforcement actions involving water well construction and pump installation code violations; (2) provide guidance to achieve statewide standardization of enforcement actions; (3) help ensure that enforcement actions are reasonable, consistent, and timely; and (4) assist local agencies with meeting the Minimum Program Requirements (MPRs) under the Department of Environmental Quality (DEQ), Local Health Department Operations Contracts.

These procedures augment enforcement tools authorized in some counties by local ordinances, such as appearance tickets and civil monetary penalties.

Legal Authority

Part 127, Water Supply and Sewer Systems, of the Public Health Code (PHC), 1978 PA 368, as amended and administrative rules promulgated thereunder, referred to as the *Groundwater Quality Control Rules (State Well Code)*, give the LHDs legal authority to enforce the State Well Code. Although Part 127 of the PHC gives enforcement authority to both the state and local agencies, the MPRs require the LHDs to enforce the State Well Code.

Section 333.12708 of the PHC states that the state or LHD may enter and inspect, at reasonable hours, an installation on public or private property for the development or abandonment of ground water supplies. A similar provision authorizing the LHDs to inspect and investigate is found in Section 333.2446 of the PHC. Local prosecuting attorneys and the attorney general are given responsibility for prosecution of violators under Sections 333.12715 and 333.1299 of the PHC.

Section 333.12709 of the PHC states that when the state or LHD determines that there are reasonable grounds to believe there has been a violation of sections 12701 to 12715 or a rule or the construction code promulgated under section 12714, the state or LHD shall investigate the violation. If it is established that a violation has been committed, the LHD shall order the responsible person to make proper corrections.

Other statutory provisions related to inspection/enforcement activities are found within Parts 22 and 24 of the PHC (See Appendix 5). Sections 333.2241 to 333.2247 within Part 22 and Sections 333.2446, 333.2455, and 333.2461 through 333.2465 are particularly applicable. These provisions extend enforcement authority beyond the provisions listed in Part 127 that are found in the State Well Code booklet.

The Department of Environmental Quality (DEQ) has the statutory responsibility for issuing the registration certificates for water well drillers and pump installers (Contractors). Administrative actions relating to revocation or suspension of registrations are the responsibility of the DEQ.

Primary Enforcement Procedures

When a State Well Code violation is discovered, it is recommended that the person responsible for committing the violation be contacted via telephone. Oftentimes a telephone contact is all that is necessary to get the responsible person to correct the violation. Some individuals respond more favorably to a personal contact, such as a telephone call or face-to-face meeting.

For State Well Code violations involving site specific issues, it is beneficial to meet the responsible person at the site to discuss the violation. This approach gives the sanitarian an opportunity to explain the violation and discuss correction options while taking site conditions into consideration. If the responsible person is a Contractor, the property owner should be included in the discussion, particularly if the corrections will result in extensive excavation, major alteration, or further expense.

Documentation of the violation is important. A sample follow-up letter is attached (Appendix 1). Copies of this letter should be sent to the homeowner and the DEQ, WCU, to be entered in the Contractor's file.

When correction is obtained, a brief follow-up letter or file memo should be prepared confirming the correction with copies sent to the water well owner, Contractor, the WCU, and other involved parties.

Secondary Enforcement Procedures

If the responsible person fails to make the necessary corrections after the initial contact, a correction order should be sent, pursuant to Section 333.12709 of the PHC. The suggested format for a correction order is found in the DEQ, Drinking Water and Radiological Protection Division, Policy/Procedure 03-010 (dated January 1, 1999) and in Appendix 2. In cases where the violation involves a person drilling a water well without being registered, the initial telephone contact or meeting is not necessary and a correction order should be sent as the first step. A copy of a sample correction order for unregistered Contractors is found in Appendix 3.

Correction orders should be mailed certified, return receipt requested, or personally delivered, to help ensure receipt by the Contractor. A duplicate order may also be sent by regular mail (unless the certified letter was personally delivered) since some people refuse to accept a certified letter. The proof-of-service form in Appendix 4 should be completed by the secretarial or clerical staff person who actually mails the letter. Mailing a letter via regular mail (which is not returned to the sender as undeliverable) along with a completed proof-of-delivery form, is generally accepted by administrative hearing officers as proof of delivery, in lieu of a certified letter that has been refused by the addressee.

Establishing correction deadlines

Give the responsible person a reasonable deadline for correcting the violation. For most State Well Code violations between 5 and 30 days are appropriate depending on the severity of the violation. Special circumstances, such as seasonal load limits on roads and access to property, should be taken into consideration. Being consistent is important – do not give a Contractor 5 days to correct a violation if you gave another Contractor 30 days to correct the same type of violation.

If the Contractor does not respond to the correction order, the WCU should be contacted for advice. The following actions may be taken depending on the nature of the violation and other circumstances:

1. Meet with the contractor, the LHD, and the DEQ representative.
2. Seek prosecution through the local prosecuting attorney or corporate counsel for violation of a correction order issued by the DEQ or the LHD as per Sections 333.12715 and 333.2261 of the PHC.
3. Pursue injunctive action to restrain, prevent, or correct an activity or condition which the LHD believes adversely affects public health, pursuant to the provisions of Section 333.2255 of the PHC.
4. The DEQ may initiate administrative action to revoke or suspend the registration certificate pursuant to the provisions of R 325.1707a.

Administrative Procedures

Where a Contractor has demonstrated a pattern of noncompliance, or a serious matter which threatens public health has occurred, further enforcement action, such as suspension, revocation, or denial of registration certificate renewal, may be necessary. The DEQ will initiate such action in cooperation with the LHD.

Administrative proceedings against the Contractor's registration certificate must be conducted in accordance with the Administrative Procedures Act (APA), 1969 PA 306, as amended. The initial step in this process is the preparation of a "Notice of Intent to Revoke Certificate of Registration...(Notice of Intent)." It is recommended that the LHDs prepare a draft Notice of Intent and submit it to the DEQ for review. This will speed up the enforcement process significantly.

Issuance of a Notice of Intent informs the Contractor of the DEQ's intent to take administrative action against their certificate of registration. It offers an opportunity to attend an informal conference (also referred to as a "Rogers" conference) to demonstrate compliance with the State Well Code. A sample Notice of Intent is available from the WCU upon request.

The matter may be settled at the informal conference through a Consent Agreement with provisions for correction of violations, suspension of the certificate of registration, probationary periods, monetary penalties, or other options agreeable to both parties. The informal conference may also reveal that the Contractor was not responsible for the violation or condition. In such cases, the administrative actions are terminated.

If the matter is not resolved at the informal conference, a "Notice of Formal Hearing" is issued and a formal hearing offered to the Contractor in accordance with the APA. Refer to the APA for more details.

Questions regarding enforcement of the State Well Code should be directed to the Well Construction Unit, Drinking Water and Environmental Health Section, Water Bureau, Michigan Department of Environmental Quality at 517-241-1374 or 517-241-1389.

6/2002 - WCU

SAMPLE FOLLOW-UP LETTER

Date

Mr. John Rockwell, WD#84-3000
Rockwell Drilling Company
P. O. Box 360
Smalltown, Michigan 49999

Dear Mr. Rockwell:

This is to confirm our telephone conversation of January 30, 2000, regarding the water supply your firm installed at the J. R. Ewing residence, 6430 13th Avenue, Smalltown, Michigan 49999. It was noted during a recent inspection that a sampling tap was not installed in accordance with Rule 158 of the State Well Code. During our telephone conversation you stated that corrections would be made within the next week.

Please contact our office upon completion of the corrections so that a reinspection can be performed.

Sincerely,

Sanitarian
Local Health Department

S:sec

cc: Water well owner
Well Construction Unit, DEQ

SAMPLE CORRECTION ORDER

SEND VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Date

Mr. Robert J. Deepholer, WD#84-3001
Deepholer Well Drilling
Route #2, P. O. Box 1083
Lake Mead, Michigan 48625

Dear Mr. Deepholer:

District Health Department No. 6 (DHD No.6) has reasonable grounds to believe there has been a violation of Part 127, Water Supply and Sewer Systems, of the Public Health Code (PHC), 1978 PA 368 (State Well Code), as amended, or the rules, regulations, or construction code. Pursuant to Section 12714 of the PHC, a review of our files and field activities disclosed the following deficiencies:

- In November 1999, your firm completed a water well installation at the Barney Fife residence, 12461 Mayville Road, Green City, Michigan, Section 21, T.26N. R.10W. Augusta Township, Blake County. The buried suction line extending from the water well into the basement was not installed in an outer protective casing (concentric piping) as required by R 325.1654, Rule 154. This condition could result in contaminants being drawn into the water system.

Pursuant to Section 12709 of the PHC you are hereby **ordered** to do the following no later than February 15, 2000:

1. Return to the Fife residence and install concentric piping with the annular space pressurized as per R 325.1654, Rule 154.
2. Notify the DHD No.6 at 517-491-5126 upon completion of the corrections so that DHD No.6 staff can perform a follow-up inspection.

You are further advised that pursuant to Section 12715 of the State Well Code any person who is convicted of the violation of any provision of the act or any rule, regulation, or construction code adopted under the act, or any order of the director of the health department, is guilty of a misdemeanor.

Sincerely,

Director of Environmental Health
District Health Department No. 6

DEH:sec
cc: Well owner
Well Construction Unit, DEQ

**SAMPLE CORRECTION ORDER
UNREGISTERED CONTRACTOR**

SEND CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Date

Mr. Bart Simpson
505 South 14th Street
South Marine, Michigan 48039

Dear Mr. Simpson:

It has been reported to the County Health Department (CHD) that you have been installing water wells in the South Marine area of Clark County.

Section 12704 of Part 127, Water Supply and Sewer Systems, of the Public Health Code, 1978 PA 368 (State Well Code), as amended, states that any person or firm engaging in the business of water well drilling or pump installation must be registered with the Department of Environmental Quality (DEQ). According to the DEQ, you are not registered in accordance with this statute. Therefore, you are not authorized to operate as a water well driller or pump installer and obviously any work performed is in violation of the State Well Code.

Accordingly, you are hereby **ordered** to immediately discontinue all activities in the water well drilling, well repair, pump installation, or pump repair field.

You are further advised that pursuant to Section 12715 of the State Well Code, any person who is convicted of violating any provision of the State Well Code or any rule, regulation, or construction code adopted under the State Well Code or any order issued by the health department is guilty of a misdemeanor.

Please notify our office at 810-451-8689 to discuss your intentions in the water well field and what actions you plan to take to meet the legal requirements of the State Well Code. Your prompt attention to this matter will be expected.

Sincerely,

Director of Environmental Health
County Health Department

DEH:sec

cc: Local Prosecuting Attorney
Well Construction Unit, DEQ

PROOF OF SERVICE

PROOF OF SERVICE

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

(NAME), being duly sworn, deposes and says that on (DATE), (s)he served a true copy of (TITLE OF DOCUMENT) upon (NAME OF CONTRACTOR AND TITLE OF BUSINESS) by depositing two (2) copies in the United States Post Office in the city of Lansing, Michigan, enclosed in envelopes bearing postage fully prepaid, with one (1) copy sent certified, return-receipt requested, and the second copy sent by regular mail, with both envelopes plainly addressed as follows:

(NAME AND ADDRESS OF CONTRACTOR)

(NAME-AS ABOVE)

Subscribed and sworn before me, this _____ day
of _____, 20_____, a Notary Public in
and for _____ County, Michigan.

My commission expires _____

COMPLAINT FORM

SEND TO:
 <LOCAL HEALTH DEPARTMENT>
 <Address>
 <Phone>

Complaint No. File No. For Office Use Only
--

COMPANY OR INDIVIDUAL COMPLAINING AGAINST

REGISTRATION NO.

ADDRESS

CITY

STATE

ZIP

PHONE NO.

NAME OF COMPLAINANT

HOME PHONE NO.

ADDRESS

CITY

STATE

ZIP

BUSINESS PHONE NO.

SIGNATURE

DATE

LOCATION OF WELL:

ADDRESS

CITY

STATE

COUNTY

TOWNSHIP

SECTION

Give nearest intersection and directions to location of the well.

HAVE YOU CONTACTED THE CONTRACTOR ABOUT YOUR COMPLAINT? YES <input type="checkbox"/> NO <input type="checkbox"/>	IF SO, PERSON CONTACTED: DATE:
HAVE YOU CONTACTED ANY OTHER AGENCY ABOUT THIS COMPLAINT? YES <input type="checkbox"/> NO <input type="checkbox"/>	AGENCY: DATE:
HAVE YOU STARTED LEGAL ACTION? YES <input type="checkbox"/> NO <input type="checkbox"/>	WERE YOU GIVEN A WATER WELL AND PUMP RECORD? YES <input type="checkbox"/> NO <input type="checkbox"/>
WERE YOU GIVEN A WRITTEN EXTIMATE? YES <input type="checkbox"/> NO <input type="checkbox"/>	WERE YOU GIVEN AN ITEMIZED INVOICE? YES <input type="checkbox"/> NO <input type="checkbox"/>
DID YOU HAVE A WRITTEN CONTRACT COVERING THE WORK? YES <input type="checkbox"/> NO <input type="checkbox"/>	

NOTE: THIS COMPLAINT IS **NOT** CONFIDENTIAL AND WILL BE SENT TO THE CONTRACTOR OR FIRM INVOLVED. ATTACH COPIES OF ANY DOCUMENTATION THAT WILL ASSIST US IN RESOLVING THIS COMPLAINT.

AUTHORITY: ACT 368 PA 1978

SECTION 10

Example of Site Plan

Office Predrilling Site Review Checklist

Field Predrilling Site Review Checklist

Random Construction Inspection Checklist

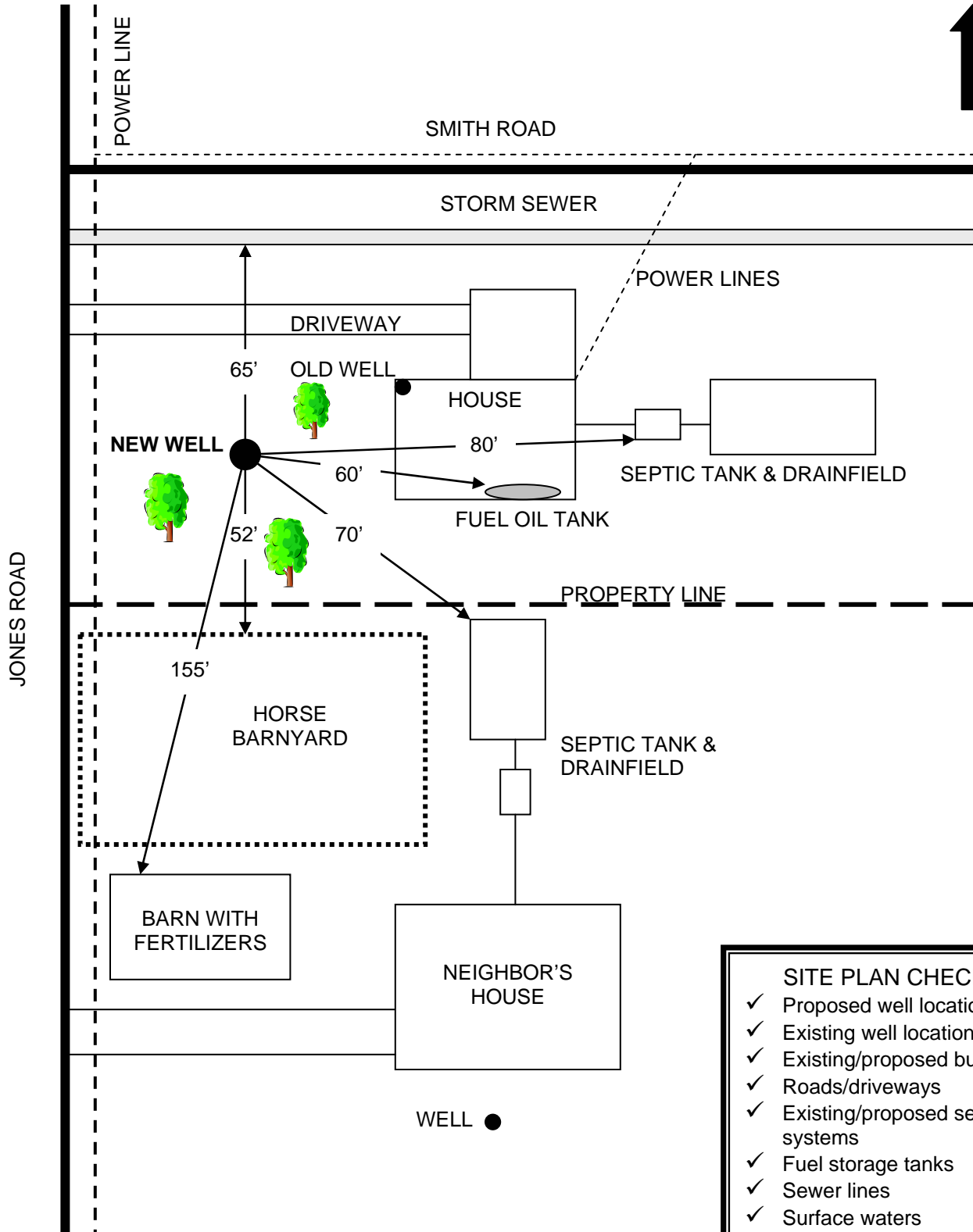
Final Inspection Checklist

Final Inspection Flowcharts

Example of Approval/Non-Approval Letters

Water Supply Approval/Closure Process

EXAMPLE OF DETAILED PROPOSED SITE PLAN



- | SITE PLAN CHECKLIST: | |
|----------------------|----------------------------------|
| ✓ | Proposed well location |
| ✓ | Existing well locations |
| ✓ | Existing/proposed buildings |
| ✓ | Roads/driveways |
| ✓ | Existing/proposed sewage systems |
| ✓ | Fuel storage tanks |
| ✓ | Sewer lines |
| ✓ | Surface waters |
| ✓ | Property lines |
| ✓ | Animal barnyards |
| ✓ | All items on adjacent properties |

OFFICE PREDRILLING SITE REVIEW CHECKLIST

Owner _____ Site Address _____

Permit/Application Number _____

A. Application Review

1. Site sketch - Required information provided? (Checklist)

Proposed well location _____ Existing wells _____ Existing/proposed building _____
Roads and driveways _____ Existing/ proposed septic tank/drainfield _____
North arrow shown _____ Fuel storage tanks _____ Sewer lines (sanitary/storm) _____
Surface water (lakes, ditches, etc.) _____ Septic tank, drainfield, fuel tanks on adjacent
property _____ Property lines _____

2. Fee paid? YES NO

3. Application signed and dated? YES NO

B. Proposed water well location acceptable? YES NO

C. Any deviations requested? YES NO
If yes, specify on permit.

D. Existing wells on site? YES NO

If yes, will water wells continue in use after construction of
new well? YES NO

(If existing well(s) meet definition of an abandoned well, it must be plugged.
Plugging must be a permit condition.)

E. Is proposed well in a subdivision? YES NO

If yes, any subdivision/deed restrictions relating to well
construction? YES NO

List subdivision/deed restrictions on permit.

F. Has available ground water data (water well records, computerized
data bases, etc.) been reviewed? YES NO

1. Any of the following contamination sources or aquifer concerns
exist? YES NO

Salt Water ___ Hydrogen Sulfide ___ Methane ___ High Iron ___ Arsenic ___ Nitrates

Other _____

Known ground water contamination site _____ Act 451, Part 201 (Act 307) site _____

L.U.S.T. _____ Other _____

Flowing Well Area ___ Unprotected aquifer ___ Fractured (Karst) Limestone ___ Bacteriological _____

Bedrock within 25 ft of surface _____ Low Production/dry hole area _____

Other _____

2. Are special well construction requirements necessary? YES NO

Type of special construction requirements _____

3. Special sampling necessary? YES NO

Type of sampling _____

Sampling frequency: Initial sample only _____ Monthly _____ Quarterly _____ Annual _____

Other _____

Evaluated By: _____

Date: _____

FIELD PREDRILLING SITE REVIEW CHECKLIST

Owner _____ Site Address _____

Permit Number _____

A. Is water well site location information provided on application accurate? YES NO

B. Is site sketch accurate? YES NO

Check site for:

Proposed well location _____ Existing wells _____ Existing/proposed building _____

Roads and driveways _____ Existing/ proposed septic tank/drainfield _____ North arrow shown _____

Fuel storage tanks _____ Sewer lines (sanitary/storm) _____ Surface water (lakes, ditches, etc.) _____

Septic tank, drainfield, fuel tanks on adjacent property _____ Property lines _____

C. Are overhead or buried utility lines near proposed water well? YES NO

D. Will trees or other obstructions interfere with water well drilling rig setup? YES NO

E. Does the site topography allow access for water well drilling rig? YES NO

F. Will water well be accessible for maintenance after site development is completed? YES NO

G. Proposed water well location approved? YES NO

If proposed well location is not approved, is there an acceptable location? YES NO

If yes, mark location on site sketch.

Comments _____

Evaluated By _____ Date _____

RANDOM CONSTRUCTION INSPECTION CHECKLIST

Owner _____ Site Address _____

Permit Number _____

A. PERMITS

1. Was permit issued? YES NO
2. Were there any permit restrictions or conditions? YES NO
3. Is the water well drilling contractor aware of the permit conditions? YES NO

B. CONTRACTOR REGISTRATION

1. Is the water well drilling contractor registered? YES NO
2. Is the drilling rig properly registered and identified with DEQ decals, registration number, business name, and address on both sides of the rig, in letters at least 2 inches high? YES NO

C. DRILLING SITE LOCATION

1. Is the water well location adequately isolated from sources of contamination. YES NO
2. Does the location comply with permit conditions? YES NO
3. Will the water well be accessible for maintenance? YES NO
4. Is the water well in a nonflooding location? YES NO

D. DRILLING METHOD

1. What type of drilling method is being used?

Rotary _____ Cable Tool _____ Auger _____ Hollow Rod _____ Jetting _____ Driving _____
Combination _____ Other _____

E. WATER WELL RECORDS

1. Is the water well driller routinely checking cuttings samples and recording geologic information? YES NO

F. WATER WELL CONSTRUCTION DETAILS

1. **Well Type:** Sand or Gravel (unconsolidated) _____ Bedrock (consolidated) _____

2. Grouting:

a. Type _____ Manufacturer _____ Product Name _____

b. Is the mud scale used to weigh grout? YES NO

c. What grouting method will be used?

Grout pipe in annulus _____ Grout pipe inside casing _____ Displacement method _____
Other _____

d. Does the water well drilling contractor have necessary grouting equipment (mixer, pump, grout pipe, hoses) and materials at the drilling site? YES NO

e. Did grout appear at the wellhead after pumping? YES NO

Weight of grout at surface: _____ lbs./gal Weight of grout before pumping: _____ lbs./gal.

f. If the water well casing is driven (cable tool, jetting, hollow rod), is dry granular bentonite placed around the casing during driving? YES NO

3. Water Well Casing

a. Type of well casing: PVC ___ Galvanized steel ___ Black steel ___ Other _____

b. Casing material approved? YES NO

4. Water Well Screen

a. Type of screen: PVC _____ Stainless steel _____ Other _____

b. Installation method: telescoped _____ attached to casing _____

c. Filter-pack installed? YES NO

d. Filter-pack chlorinated? YES NO

5. Drilling Water

a. Source approved? YES NO

b. Drilling water chlorinated to at least 10 ppm residual? YES NO

6. Water Well Development

a. Development method used: air _____ surge block _____ bailer _____
plunger _____ water jetting _____ overpumping _____

b. Approximate water well capacity (use 5 gallon pail): _____ gallons per minute

c. Water free of sand or other turbidity upon completion of the development? YES NO
(Check with clean white pail or clear jar)

7. Water Well Disinfection

a. Water well disinfected upon completion? YES NO

b. Method and amount of disinfectant adequate?

YES NO

c. Final chlorine residual in well _____ ppm (Check w /chlorine test strips)

8. **Approved temporary cap?**

YES NO

Comments: _____

Evaluated by _____ Date: _____ Reinspection Date: _____

WATER SUPPLY FINAL INSPECTION CHECKLIST

Owner _____ Site Address _____

Permit Number _____

- A. Water Well Location Approved? YES NO
1. Same location as approved on permit?
(If "No," make drawing showing location) YES NO
2. Properly isolated from contamination sources (standard and major)? YES NO
3. Accessible for maintenance/repair? YES NO
- B. Wellhead/Casing Termination Approved? YES NO
1. Method:
- Pitless adapter _____ Well house _____ Basement offset _____ Other _____
2. Wellhead
- a. 12 inches above grade? YES NO
- b. Approved well cap/seal? YES NO
- c. Approved conduit (grey Schedule 40 PVC or galvanized pipe)? YES NO NA
- d. Caving of soil or open annulus around casing? YES NO
- C. Grouting Approved? YES NO
1. Verified on water well record review? YES NO
2. Field observation of grouting? YES NO
- D. Pump Installation Approved? YES NO
1. Location? In well _____ On top of well _____ Basement offset _____ Well house _____
Other _____
2. Type? Submersible _____ Deep well jet _____ Shallow well jet _____ Constant Pressure _____
Other _____
- E. Piping Between Well and House Approved? YES NO
1. Material? Plastic: PVC _____ PE _____ Other _____
NSF-pw marking YES NO
- Minimum 160 psi pressure rating YES NO
2. Diameter _____ inches

3. Protected suction line? YES NO NA

4. For submersible pump installations, is check valve installed within well casing? YES NO NA

F. Pressure Tank Installation Approved? YES NO

1. Type: Captive air ____ Galvanized ____ Buried ____

2. Number of tanks ____

3. Pressure relief valve installed? YES NO

G. Sampling Tap Approved? YES NO

H. Water Samples Collected? YES NO

1. Type: Bacteriological ____ Partial Chemical ____ Nitrate/nitrite ____
VOC ____ Other _____

2. Sample(s) collected by: LHD ____ Owner ____ Water Well driller ____
Other _____

Comments: _____

Inspected by _____ Date: _____ Reinspection Date: _____

Have the permit conditions been met? YES NO

Is the water well record accurate and complete? YES NO

Does the system comply with the State Well Code? YES NO

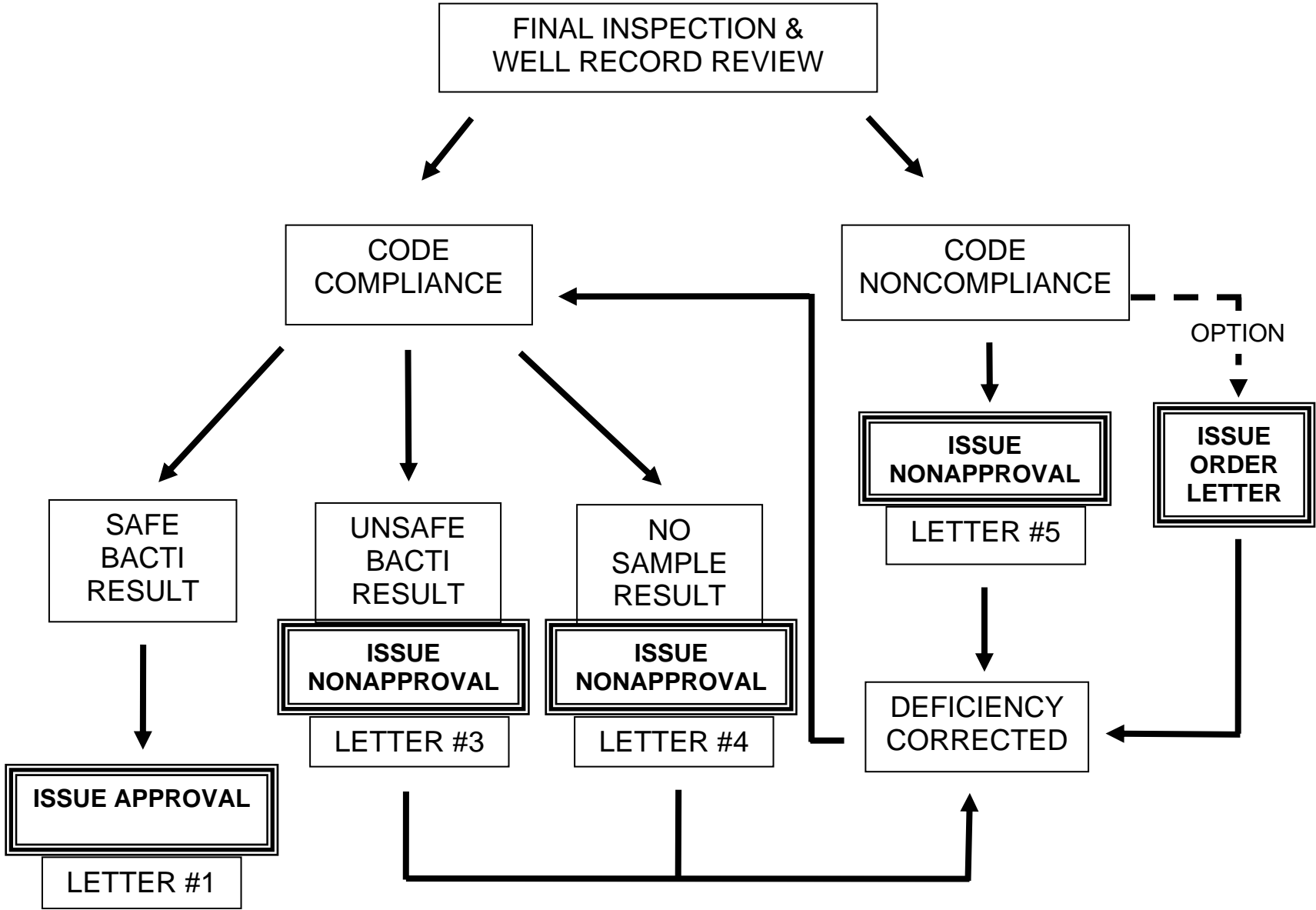
Is there a safe coliform bacteria sample? YES NO

Does any other water sampling meet acceptable levels? YES NO NA

The water well system is approved YES NO

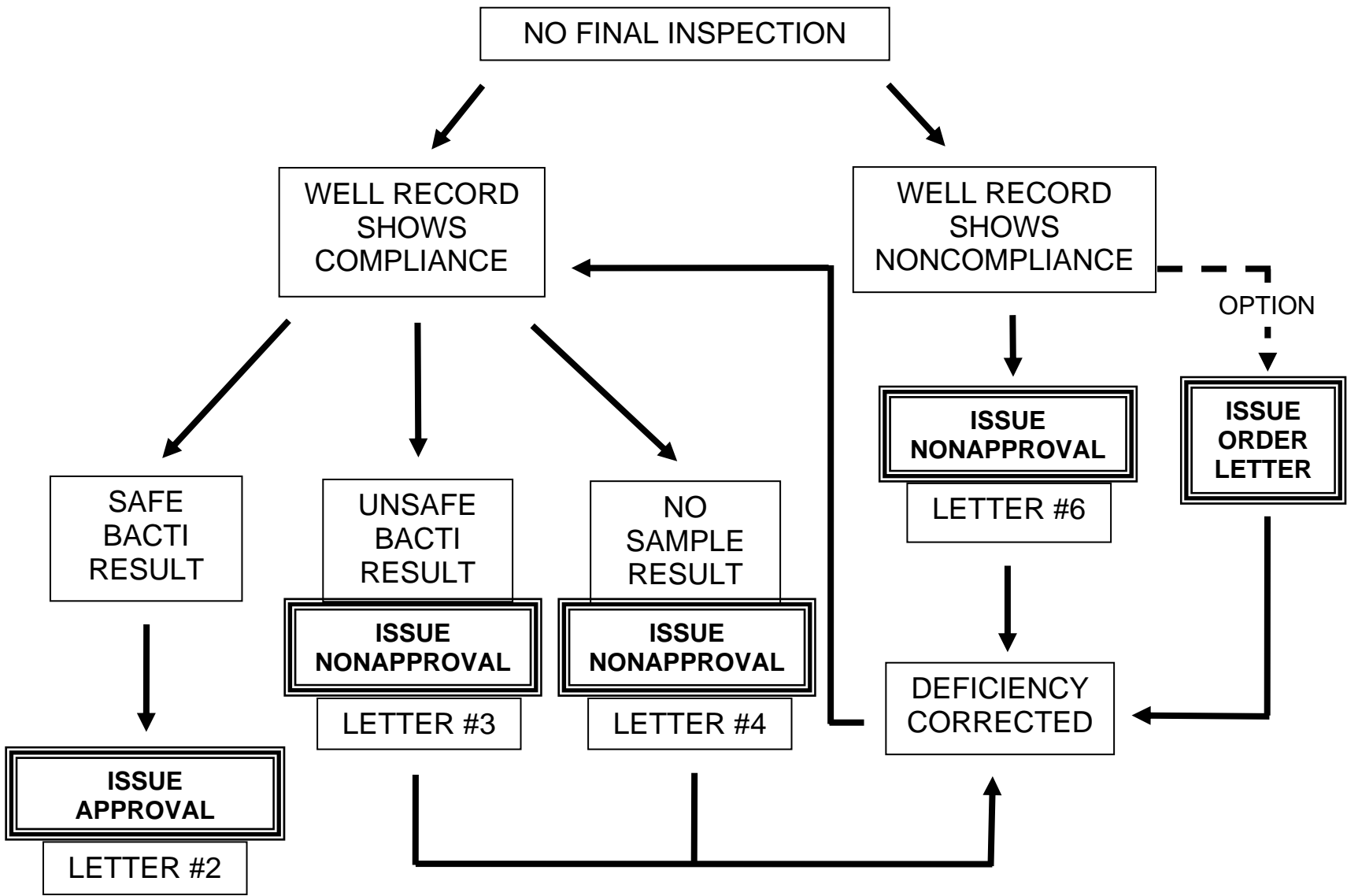
Reviewed by _____ Date _____

FLOWCHART – FINAL INSPECTION



FLOWCHART – NO FINAL INSPECTION

10-11



EXAMPLE LETTER #1
Water Supply System Approval After Final Inspection

Date

Name
Address
City, State, Zip

Dear Mr./Ms.:

SUBJECT: Notice of Water Supply System Approval for Permit (number)

The LHD has received the water well record, abandoned well plugging record (if applicable), and the bacteriological water test result for your new well. The well record and abandoned well record (if applicable) were reviewed, found to be complete, and comply with the Michigan Water Well Construction and Pump Installation Code. The water test results show that coliform bacteria were not detected. The absence of coliform bacteria indicates that the water is bacteriologically safe for consumption.

Your water system was installed by a Michigan Registered Water Well Drilling Contractor/Pump Installer, who has a legal obligation to complete the installation in accordance with state and local regulations. Additionally, a final inspection performed by our staff verified compliance with applicable state and local regulations. A completed copy of your well permit is enclosed. (optional)

If you have any questions or if we can be of further assistance, please contact our office at phone number .

Sincerely,

LHD Sanitarian

EXAMPLE LETTER #2
Well Permit Closure Without Final Inspection

Date

Name
Address
City, State, Zip

Dear Mr./Ms.:

SUBJECT: Notice of Water Supply Permit Review (number)

The _____ LHD _____ has received the water well record, abandoned well plugging record (if applicable), and the bacteriological water test result for your new well. The well record and abandoned well record (if applicable) were reviewed, found to be complete, and comply with the Michigan Water Well Construction and Pump Installation Code. The water test results show that coliform bacteria were not detected. The absence of coliform bacteria indicates that the well water is bacteriologically safe for consumption.

Your water supply system was installed by a Michigan Registered Water Well Drilling Contractor / Pump Installer who has a legal obligation to complete the installation in accordance with state and local regulations. Final inspections are performed on a random basis or upon request and are not required for all newly completed water systems. A final inspection checks the well location, wellhead completion, and water system components to verify code compliance. Access to the inside of your dwelling would be needed to complete the inspection.

If we can be of further assistance, please contact our office at phone number.

Sincerely,

LHD Sanitarian

EXAMPLE LETTER #3
Water Supply System Nonapproval - Positive Coliform Sample

Date

Name
Address
City, State, Zip

Dear Mr./Ms.:

SUBJECT: Water Supply System Nonapproval for Permit (number)

The _____ LHD _____ has received the water well record, abandoned well plugging record (if applicable), and the bacteriological water test result for your new well. The well record and abandoned well record (if applicable) were reviewed, found to be complete, and comply with the Michigan Water Well Construction and Pump Installation Code. However, the water test results show that coliform bacteria were detected. The presence of coliform bacteria indicates that the well water is bacteriologically unsafe for consumption. Therefore, an alternate temporary potable water source should be used.

Before requesting that your well driller disinfect the water system, it is suggested that you immediately collect a check sample. If disinfection is needed, the system should be thoroughly flushed before resampling. A coliform bacteria fact sheet is enclosed. Sample bottles are available from our office. Your water system cannot be approved by our office until the bacteriological contamination problem has been resolved.

If we can be of further assistance, please contact our office at phone number.

Sincerely,

LHD Sanitarian

cc: Well Drilling Contractor
Well Driller file

EXAMPLE LETTER #4
Water Supply System Nonapproval – No Coliform Sample

Date

Name
Address
City, State, Zip

Dear Mr./Ms.:

SUBJECT: Water Supply System Nonapproval for Permit (number)

The _____ LHD _____ has received the water well record and abandoned well plugging record (if applicable). The well record and abandoned well record (if applicable) were reviewed, found to be complete, and comply with the Michigan Water Well Construction and Pump Installation Code. However, our office did not receive a copy of a bacteriological water sample result.

Please provide our office with a copy of your bacteriological result. If a sample has not been collected, sample bottles are available from our office. Your water system cannot be approved by our office until you obtain a safe bacteriological sample result.

If we can be of further assistance, please contact our office at phone number .

Sincerely,

LHD Sanitarian

cc: Well Drilling Contractor

EXAMPLE LETTER #5
Water Supply System Nonapproval – Code Violation Observed During
Final Inspection

Date

Name
Address
City, State, Zip

Dear Mr./Ms.:

SUBJECT: Water Supply System Nonapproval for Permit (number)

The _____ LHD _____ has received the water well record, abandoned well plugging record (if applicable), and the bacteriological water test result for your new well. The well record and abandoned well record (if applicable) were reviewed, found to be complete, and comply with the Michigan Water Well Construction and Pump Installation Code. However, a final inspection conducted by our staff showed the following well code deficiency:

- (Brief description of violation)

Our agency is unable to approve your water system until the above deficiency is resolved. Please ask your well drilling contractor to contact our office to resolve this matter.

If we can be of further assistance or to request a reinspection, please contact our office at phone number.

Sincerely,

LHD Sanitarian

cc: Well Drilling Contractor
Well Driller file

EXAMPLE LETTER #6
Water Supply System Nonapproval – Code Violation on Well Record
No Final Inspection

Date

Name
Address
City, State, Zip

Dear Mr./Ms.:

SUBJECT: Water Supply System Nonapproval for Permit (number)

The _____ LHD _____ has received the water well record, abandoned well plugging record (if applicable), and the bacteriological water test result for your new well. The well record data suggests that the well may not comply with the Michigan Water Well Construction and Pump Installation Code. The following well record problem was identified:

- Brief explanation of well record problem

Our agency is unable to approve your water system until the above deficiency is resolved. Please ask your well drilling contractor to contact our office to resolve this matter.

If we can be of further assistance, please contact our office at phone number.

Sincerely,

LHD Sanitarian

cc: Well Drilling Contractor
Well Driller file

**Water Supply System
Approval / Closure Process**

Select all that apply:

- | | |
|--|--|
| 1 - Construction meets code | 2 - Construction does not meet code |
| 3 – Abandoned well plugged | 4 – Abandoned well not plugged |
| 5 - Bacti sample satisfactory | 6 – Coliform bacteria detected |
| 7 - No record of bacti sample | 8 – Water well record satisfactory |
| 9 – Water well record
unsatisfactory | 10 – Water well record
not submitted |

Findings:

Action:

All of the following: **1, 3, 5, and 8** **LHD ISSUES WRITTEN
APPROVAL TO OWNER**

Any of the following: **2, 4, 6, 7, 9, or 10** **LHD ISSUES WRITTEN
NOTICE OF
NONAPPROVAL TO
OWNER**