

## EXECUTIVE SUMMARY

In accordance with the MS4 permit number MO-R040088, an annual report is required to be presented to MDNR no later than the 28<sup>th</sup> of July of each year. The purpose of this report is to provide the status of the six minimum control measures (MCMs) and subsequent measurable goals. Of the 106 measurable goals for the third reporting year, there are ten measurable goals that have not been completed or are in progress. Each of last year's three uncompleted measurable goals have been brought into green status (completed) this reporting cycle.

### Public Education and Outreach (MCM 1)

Outreach was not as big of a focus this year due to staffing issues; however, FLW was still highly successful at ensuring that the minimum control measures were maintained.

During a thorough review of the BMPs for this MCM, the following error was found: During reporting year (RY) 1, BMP 1A stipulates that military and civilian audiences must be broken down into impacted groups and targeted pollutants. This BMP was misconstrued and therefore, not completed as suggested by the requirement. During RY 3, FLW began identifying the impacted groups as required and plan to complete this analysis in RY 4.

### Public Involvement/Participation (MCM 2)

FLW is considering establishing a Stream Team consisting of military soldiers, civilians and residents during the fourth reporting year. Collaboration with local elementary and high schools continued and included interactive programs such as storm drain stenciling and trash pick-ups.

### Illicit Discharge Detection and Elimination (MCM 3)

The IDDE Program has continued to be a high priority this reporting year. Methods for detection, inspection and training continue to improve. In addition, all established best management practices for this MCM have been documented in a written standard operating procedure.

Outfall Inspections were completed during this reporting year, however, the hard copied documentation of the inspections reports have been misplaced due to staffing issues. Efforts are being made to find the inspections, however, in the event they cannot be retrieved, outfall inspections will be redone to the maximum extent practicable during RY 4 and documented as required.

### Construction Site Storm water Runoff Control (MCM 4)

Maintaining existing procedures to this well established and successful program have been the primary focus for this reporting cycle.

### Post-Construction Runoff Control (MCM 5)

Collaboration between USACE, DPW Master Planning, DPW Design Branch, and the Environmental Branch is ongoing; however, six measurable goals were not completed. After a review of the SWMP, FLW has deemed the program to be good but many of the measurable goals unrealistic at this stage in the program.

### Pollution Prevention/Good Housekeeping (MCM 6)

The FLW Directorate of Public Works is a large, multifaceted organization. This year we have been investigating the DPW and attempting to determine what existing policies and procedures are in place and how they relate to the MS4 Permit, so that further collaboration can be effective.

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  - E4: *GARRISON COMMAND POLICY #200-1*
  
- F: POLLUTION PREVENTION/GOOD HOUSEKEEPING
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## INTRODUCTION

This report documents the activities required to fulfill the Phase II National Pollutant Discharge Elimination System (NPDES) Permit, MO-R040088, issued by the Missouri Department of Natural Resources (MDNR) to the U.S. Army Installation Management Command (IMCOM), and Fort Leonard Wood (FLW). Documentation necessary to fulfill the third year reporting requirements specified in Section 5.3 of the Permit for the period of June 13, 2011- June 12, 2012 are included herein. This report was prepared in collaboration with the FLW Environmental Division, and ICI Services Corporation.

The *MS4 Annual Report* documents the overall efforts by FLW to adhere to the Storm Water Management Plan. This report gives the status of each measurable goal for the six minimum control measures (MCMs), per the requirements and guidelines outlined in the MS4 Permit.

## 1.0 PUBLIC EDUCATION AND OUTREACH (SWMP Section 7.1)

### 1. Implementation Status

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- a. In an effort to increase efficiency of the Public Education and Outreach Program, an SOP was created to outline the procedures that FLW will take to implement MCM 1 and 2 of the SWMP.

The following attachments are relevant to MCM 1:

A1: *List of Publication*

A2: *Public Education/Outreach and Involvement SOP*

A3: *Educational Campaign Plans*

A3.1 *Military and Civilian Personnel (including Contractors)*

A3.2 *Residential*

A3.3 *Businesses*

A3.4 *Students*

A4: *2012 Educational Campaign Report and Effectiveness Evaluation for MCM 1 & 2*

- b. Program Element Revisions: No SWMP elements have been changed or refined this reporting cycle.
- c. Status of Measurable Goals: The statuses of the measurable goals for this MCM are presented in *Table 1*. Items that are highlighted in green identify goals that have either been completed or implemented during the first and second reporting cycle. Items in orange identify goals that are in progress during the current reporting cycle.
- d. Completion Dates and Goals Not Completed:
1. Completion Dates: The completion dates for all measurable goals are included in *Table 1*.
  2. Scheduled Goals Not Completed: Scheduled goals not completed and their explanations for this reporting cycle are included in *Table 1*.

### 2. Overall Compliance with Permit Conditions and SWMP

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- a. Assessment of BMP Appropriateness: The BMPs and measurable goals for this MCM have been reviewed and have been determined to be appropriate and valuable to meeting the permitted requirements.

- b. Progress towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable: Because there is no way to quantify the actual reduction in pollutants due to our public involvement activities, FLW assumes that our public involvement activities, such as Stream Team and other hands-on outreach activities, will eventually modify behavior and improve long-term water quality.

### **3. Results of Information Collected and Analyzed**

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Nothing to report at this time.

### **4. Storm water Activities Planned for the Next Reporting Cycle**

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Measurable goals for this MCM that will be undertaken during the next reporting cycle are presented in *Table 1*.

### **5. Proposed Changes to the Program Area and Documented SWMP**

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- a. Changes to BMPs: None at this time.
- b. Changes to Measurable Goals: The SWMP will be revised during the next reporting year to meet the revised permit requirements in alignment with MDNR's permit cycle.

## 2.0 PUBLIC INVOLVEMENT/PARTICIPATION (SWMP Section 7.2)

### 1. Implementation Status

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- a. An effective Public Involvement and Participation program has been established and deemed effective. A relationship has been established with the Missouri Stream Team Coordinators as well as the volunteer office on post and efforts have been put in place to explore the establishment of a FLW Stream Team. The FLW website is continuing to improve and provides a medium for personnel to learn about storm water pollution. The website is as follows, [www.wood.army.mil/dpwenv](http://www.wood.army.mil/dpwenv).

The following attachments are relevant to MCM 2:

A1: *List of Publication*

A2: *Public Education/Outreach and Involvement SOP*

A3: *Educational Campaign Plans*

A3.1 *Military and Civilian Personnel (including Contractors)*

A3.2 *Residential*

A3.3 *Businesses*

A3.4 *Students*

A4: *2012 Educational Campaign Report and Effectiveness Evaluation for MCM 1 & 2*

- b. Program Element Revisions: No SWMP elements have been changed or refined this reporting cycle.
- c. Status of Measurable Goals: The statuses of the measurable goals for this MCM are presented in *Table 2*. Items that are highlighted in green identify goals that have either been completed or implemented during the first and second reporting cycle.
- d. Completion Dates and Goals Not Completed:
1. Completion Dates: The completion dates for all measurable goals are included in *Table 2*.
  2. Scheduled Goals Not Completed: All scheduled goals have been completed for this reporting cycle.

### 2. Overall Compliance With Permit Conditions and SWMP

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- a. Assessment of BMP Appropriateness: The BMPs and measurable goals established for this MCM have been reviewed during this reporting year and have been determined to be appropriate at this stage of the program.
- b. Progress towards Achieving the Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable: Because there is no way to quantify the actual reduction in pollutants due to our public involvement activities, FLW assumes that our public involvement activities, such as Stream Team and other hands-on outreach activities, will eventually modify behaviors and improve long-term water quality.

### 3. Results of Information Collected and Analyzed

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Nothing to report at this time.

### 4. Stormwater Activities Planned for the Next Reporting Cycle

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Measurable goals for this MCM that will be undertaken during the next reporting cycle are presented in *Table 2*.

### 5. Proposed Changes to the Program Area and Documented SWMP

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- a. Changes to BMPs: None at this time.
- b. Changes to Measurable Goals: The SWMP will be revised during the next reporting year to meet the revised permit requirements in alignment with MDNR's permit cycle.

### 3.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION (SWMP Section 7.3)

#### 1. Implementation Status

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- a. Prior to the MS4 permit issuance, FLW already had many successful plans, procedures, policies and contracts in place. This includes, but is not limited to, the Spill Prevention and Response Program (SPRP), Capacity, Management, Operations and Maintenance (CMOM) Plan, and the Hazardous Waste Management Plan (HWMP). The success of IDDE program will come from collaboration and coordination with these already established and successful programs.

The following attachments are relevant to MCM 3:

B1: *FLW Storm Sewer System Map*

B2: *Illicit Discharge Detection and Elimination SOP*

B3: *Illicit Discharge Reporting Procedure*

C. *Continuum of Enforcement*

D: *The Missouri Department of Natural Resources issued Letter of Warning (LOW)*

- b. Program Element Revisions: No SWMP elements have been changed or refined for this reporting cycle.
- c. Status of Measurable Goals: The statuses of the measurable goals for this MCM are present in *Table 3*. Items that are highlighted in green identify goals that have either been completed or implemented during the first, second and third reporting cycles, where as the items in orange identify goals that are in progress during the current reporting cycle.
- d. Completion Dates and Goals Not Completed:
  1. Completion Dates: The completion dates for all measurable goals are included in *Table 3*.
  2. Scheduled Goals Not Completed: The scheduled goals that have been completed and the explanations for this reporting cycle are included in *Table 3*.

#### 2. Overall Compliance With Permit Conditions and SWMP

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- a. Assessment of BMP Appropriateness: The BMP's and measurable goals for this MCM have been reviewed and some are deemed appropriate, the ones determined to be inappropriate are indicated as such in *Table 3*.
- b. Progress towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable: Due to the nature of training at FLW (Army Engineer School, heavy equipment operations, etc.), a high amount of low volume spills can be expected. However, because we had an effective spill prevention and response program, which was already in place prior to this permit issuance, our discharge of pollutants is de minimis. Furthermore, sewer overflow reports (that include corrective actions) are consistently submitted to MDNR as required.

### **3. Results of Information Collected and Analyzed**

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Smoke testing results of sewer lines were analyzed and findings did not indicate any stormwater line issues.

### **4. Storm water Activities Planned for the Next Reporting Cycle**

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Measurable goals for this MCM that will be undertaken during the next reporting cycle are presented in *Table 3*.

### **5. Proposed Changes to the Program Area and Documented SWMP**

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- a. Changes to BMPs: None at this time.
- b. Changes to Measurable Goals: The SWMP will be revised during the next reporting year to meet the revised permit requirements in alignment with MDNR's permit cycle.

## 4.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL (SWMP Section 7.4)

### 1. Implementation Status

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- a. Maintaining existing procedures has been the primary focus during the 2011 – 2012 reporting year. Due to the amount of open Land Disturbance Permits as well as the variety of responsible parties for the permits, this aspect of the MS4 permit is a continued challenge. The MS4 program manager and the Land Disturbance Program Managers have made great strides at conducting inspections, identifying issues of non compliance, sending out notifications of noted issues, and conducting follow up inspections. However, enforcement of the existing corrective action protocol has proven to be a challenge. Efforts to correct this issue have included meetings with the FLW Environmental Branch and Division Chiefs, trying out a new procedure and the decision to draft a FLW Regulation.

The following attachments are relevant to MCM 4:

C: *Continuum of Enforcement*

- b. Program Element Revision: No SWMP elements have been changed or refined for this reporting cycle.
- c. Status of Measurable Goals: The statuses of the measurable goals for this MCM are presented in *Table 4*. Items that are highlighted in green identify goals that have either been completed or implemented during the first and second reporting cycle. Items in orange identify goals that are in progress, have not been completed or have been amended during the current reporting cycle.
- d. Completion Dates and Goals Not Completed:
  1. Completion Dates: The completion dates for all measurable goals for this reporting cycle are included in *Table 4*.
  2. Scheduled Goals Not Completed: Scheduled goals not completed and their explanations for this reporting cycle are included in *Table 4*.

### 2. Overall Compliance with Permit Conditions and SWMP

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- a. Assessment of BMP Appropriateness: The BMPs and measurable goals for this MCM have been reviewed during this reporting year and have been determined to be appropriate.
- b. Progress towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable: Much progress has been made, and while there are opportunities for improvement, none are practical at this time. It is suspected that the new turbidity law, new Leadership in Energy and Environmental Design (LEED) requirement and new requirements for no net increase in runoff will result in a reduction of pollutants, but this change will take some time to realize and to be measurable.

### 3. Results of Information Collected and Analyzed

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There is nothing to report at this time.

### 4. Storm water Activities Planned for the Next Reporting Cycle

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Measurable goals for this MCM that will be undertaken during the next reporting cycle are presented in *Table 4*.

### 5. Proposed Changes to the Program Area and Documented SWMP

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- a. Changes to BMPs: None at this time.
- b. Changes to Measurable Goals: The SWMP will be revised during the next reporting year to meet the revised permit requirements in alignment with MDNR's permit cycle.

## 5.0 POST-CONSTRUCTION RUNOFF CONTROL (SWMP Section 7.5)

### 1. Implementation Status

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- a. Several new development projects have LID features incorporated, and FLW continues to strive to enforce the LID requirements. Collaboration with United States Army Corp of Engineers (USACE), DPW Master Planning and Design Branch personnel to institutionalize existing low impact development policies and procedures are on-going. FLW and USACE strive to determine BMPs that are appropriate for the FLW region.
- b. The following attachments are relevant to MCM 5:
  - E1: *EPA Factsheet: Technical Guidance on Section 438 of EISA*
  - E2: *DoD Memorandum: Implementation of Section 438 of EISA*
  - E3: *DA Memorandum: Managing Storm water with Low Impact Development*
  - E4: *Garrison Command Policy #200-1*
- c. Program Element Revisions: No SWMP elements have been changed or refined for this reporting cycle.
- d. Status of Measurable Goals: The statuses of measurable goals for this MCM are presented in *Table 5*. Items that are highlighted in green identify goals that have either been completed or implemented during the first, second and third reporting cycle. Items in orange identify goals that are in progress or have been amended during the previous or current reporting cycle.
- e. Completion Dates and Goals Not Completed:
  1. Completion Dates: The completion dates for all measurable goals for this reporting cycle are included in *Table 5*.
  2. Scheduled Goals Not Completed: Scheduled goals not completed and their explanations for this reporting cycle are included in *Table 5*.

### 2. Overall Compliance With Permit Conditions and SWMP

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- a. Assessment of BMP Appropriateness: The BMPs and measurable goals developed for this MCM have been reviewed and deemed appropriate.
- b. Progress towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable: All new development and redevelopment major construction projects at FLW are now being planned and designed according to EISA 2007, Section 438, which specifies no net increase in storm water runoff on federal facilities. Since

this is a new requirement, it will take some time to see an actual increase in water quality, but this is sure to improve water quality in the future as the current projects begin construction. There are still many items that need to be implemented by FLW in order to achieve the statutory goal of reducing the discharge of pollutants to the maximum extent practicable; however, FLW is committed to making these changes.

### **3. Results of Information Collected and Analyzed**

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There is nothing to report at this time.

### **4. Storm water Activities Planned for the Next Reporting Cycle**

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Measurable goals for this MCM that will be undertaken during the next reporting cycle or the next permit cycle are presented in *Table 5*.

### **5. Proposed Changes to the Program Area and Documented SWMP**

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- a. Changes to BMPs: None at this time.
- b. Changes to Measurable Goals: After a thorough review of measurable goals during this reporting year, it has been determined that many are not feasible or achievable during the current stage of the Program. The SWMP will be revised during the next reporting year to meet the revised permit requirements in alignment with MDNR's permit cycle.

## 6.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING (SWMP Section 7.6)

### 1. Implementation Status

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- a. FLW Staff continues to review existing plans, procedures, contracts and studies, etc. in an effort to become educated on MCM 6 requirements.

The following attachments are relevant to MCM 6:

A1: *List of Publication*

A2: *Public Education/Outreach and Involvement SOP*

A3: *Educational Campaign Plans*

A3.1 *Military and Civilian Personnel (including Contractors)*

A3.2 *Residential*

A3.3 *Businesses*

A3.4 *Students*

A4: *2012 Educational Campaign Report and Effectiveness Evaluation for MCM 1 & 2*

F1: *The Typical Department of Defense (DoD) Installation Functional Areas and Processes*

F2: *The Pollution Prevention/Good Housekeeping SOP*

- b. Program Element Revisions: No SWMP elements have been changed or refined for the second reporting cycle.
- c. Status of Measurable Goals: The statuses of the measurable goals for this MCM are presented in *Table 6*. Items highlighted in green identify goals that have either been completed or implemented during the first and second reporting cycle. Items in orange identify goals that are in progress during the current reporting cycle.
- d. Completion Dates and Goals Not Completed:
1. Completion Dates: Completion dates for all measurable goals completed during this reporting cycle are included in *Table 6*.
  2. Scheduled Goals Not Completed: All scheduled goals for this reporting period have been completed.

## 2. Overall Compliance With Permit Conditions and SWMP

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- a. Assessment of BMP Appropriateness: The BMPs and measurable goals are very appropriate for FLW; however, BMP's 6B and 6C are redundant to BMPs found in MCM 1, (Public Education and Outreach).
- b. Progress towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable: FLW already had many successful plans, permits and programs in place prior to issuance of this permit that led to a low initial amount of pollutant discharges. The proven efforts of FLW Patrons to report spills and FLW's Department of Public Works and Environmental Division commitment to respond, investigate and implement immediate corrective action, it is certain that the overall goal to reduce discharges and improve water quality will be met.

## 3. Results of Information Collected and Analyzed

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Nothing to report at this time.

## 4. Storm water Activities Planned for the Next Reporting Cycle

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Measurable goals for this MCM that will be undertaken during the next reporting cycle are presented in *Table 6*.

## 5. Proposed Changes to the Program Area and Documented SWMP

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- a. Changes to BMPs: None at this time.
- b. Changes to Measurable Goals: The SWMP will be revised during the next reporting year to meet the revised permit requirements in alignment with MDNR's permit cycle.



## LIST OF ACRONYMS AND ABBREVIATIONS

|       |  |
|-------|--|
| AAFES | Army and Air Force Exchange Service              |
| BMP   | Best Management Practice                         |
| CFR   | Code of Federal Regulation                       |
| CMOM  | Capacity, Management, Operations and Maintenance |
| DA    | Department of the Army                           |
| DoD   | Department of Defense                            |
| DPW   | Directorate of Public Works                      |
| ECO   | Environmental Compliance Officer                 |
| EISA  | Energy Independence and Security Act             |
| EMS   | Environmental Management System                  |
| EPA   | Environmental Protection Agency                  |
| FLW   | Fort Leonard Wood                                |
| GIS   | Geographical Information System                  |
| GPS   | Global Positioning System                        |
| HWMP  | Hazardous Waste Management Plan                  |
| IMCOM | Installation Management Command                  |
| MCM   | Minimum Control Measure                          |
| MDNR  | Missouri Department of Natural Resources         |
| MS4   | Municipal Separate Storm Sewer System            |
| NoN   | Notice of Non-Compliance                         |
| NPDES | National Pollutant Discharge Elimination System  |
| SIC   | Standard Industrial Classification               |
| SPRP  | Spill Prevention and Response Plan               |
| SWMP  | Storm Water Management Plan                      |
| SWPPP | Storm Water Pollution Prevention Plan            |
| USACE | United States Army Corps of Engineers            |

TABLE 1  
Public Education and Outreach Minimum Control Measure  
MS4 Annual Report  
U.S. Army Installation Management Command and Fort Leonard Wood

| Measurable Goals   | Permit Section                      | Year Required | Report Year | Measurable Goal Status   | Completion Date   |
|--|-------------------------------------|---------------|-------------|--|---|
| <b>BMP 1A - Implement a Storm Water Education Program (SWMP Section 7.1.1, page 17)</b>  |                                     |               |             |  |   |
| I. Military/Civilian Personnel<br>1) Identify civilian/ military personnel groups impacted and targeted pollution sources to address | 4.2.1.1.1<br>4.2.1.1.2<br>4.2.2.1.2 | 1             | 1           | <b>Complete</b><br>Identified groups and targeted pollution sources are:<br>I. Military/Civilian Personnel - Solid Waste, Sediment and Spills;<br>II. Residential - Fertilizers, Solid Waste, Pesticides, Spills, Household hazardous materials;<br>III. Student (School Age) - Solid Waste;<br>IV. Contractors - Solid Waste, Sediment, and Spills; and<br>V. Businesses -Solid Waste and Spills.<br>Target Audiences were identified in August 2009. Target Pollutant sources were identified in April 2010. | Audiences<br>Aug-09<br><br>Pollutant<br>Sources<br>Apr-10 |
|  |                                     |               | 2           | <b>Reviewed</b><br>No change.  | Jun-11  |
|  |                                     |               | 3           | <b>Incomplete</b><br>Due to an oversight in the Year 1 Report, this goal was not completed per the SWMP's intentions and will be accurately completed during the 4th reporting year. See Summary for details.  | Pending   |
| 2) Identify and/or develop training materials for Pollution Prevention/Good Housekeeping, in accordance with BMP 6B                  | 4.2.6.1.7                           | 1-2           | 1           | Planned for completion in second reporting cycle   |   |
|  |                                     |               | 2           | <b>Complete</b><br>See Attachment A1, Inventory List of Distribution Materials for detailed information.   | Jun-11  |
|  |                                     |               | 3           | <b>Reviewed/Completed</b><br>Inventory list of distribution materials has been reviewed and updated, See List of Publications, Attachment A1.  | Mar-12  |
| 3) Conduct training for impacted personnel regarding storm water pollution prevention  | 4.2.1.1.3                           | 1-5           | 1           | Planned to begin in second reporting cycle   |   |
|  |                                     |               | 2           | <b>Complete</b><br>We are in the process of developing an MS4 Training Plan, which will account for all of the MS4 training needs, It is not yet complete, but will be next year. Upon completion, we will set up a regular training cycle to insure compliance with this requirements.  | Jun-11  |
|  |                                     |               | 3           | <b>Complete</b><br>Training was conducted for Military and Civilian Personnel as well as Contractors. See 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4.   | Mar-12  |
| 4) Evaluate and revise educational materials as necessary to ensure compliance with MCM 6  | 4.2.6.1.7                           | 1-5           | 1           | Planned to begin in second reporting cycle   |   |
|  |                                     |               | 2           | <b>Complete</b><br>This is being done as part of BMP 6B. See Attachment A1.  | Jun-11  |
|  |                                     |               | 3           | <b>Complete/Reviewed</b><br>Education materials continue to be reviewed and revised as needed. See Attachment A1.  |   |

TABLE 1  
Public Education and Outreach Minimum Control Measure  
MS4 Annual Report  
U.S. Army Installation Management Command and Fort Leonard Wood

| Measurable Goals   | Permit Section | Year Required | Report Year | Measurable Goal Status   | Completion Date |
|--|----------------|---------------|-------------|--|-----------------|
| II. Residents<br>1) Identify targeted pollutant sources (BMP 1A-1) to focus educational messages for residents   | 4.2.1.1.1      | 1-5           | 1           | <b>Complete</b><br>Targeted pollutant sources for residents are: fertilizers, solid waste, spills, household hazardous materials, and pesticides.  | Sep-09          |
|  |                |               | 2           | <b>Complete</b><br>No change. Targeted pollutant sources for this target audience remain the same.   | Jun-11          |
|  |                |               | 3           | <b>Complete/Reviewed</b><br>Targeted pollutant sources for this target audience remain the same.   | Mar-12          |
| 2) Identify and/or develop educational campaigns, brochures, and/or public workshops   | 4.2.1.1.3      | 1-5           | 1           | <b>On-Going</b><br>Task being tracked continuously in a spreadsheet that contains information regarding events held, dates, participants, and message, etc. (See Attachment B - MS4 Outreach Activities). A listing of brochures and other materials available for distribution is also found in Attachment C-Publications List. In addition, a 5-year storm water education program has been developed for FLW for the following groups: Military/Civilian Personnel, Contractors, Residential, Businesses, and School Groups. See Attachment A for more details.   |                 |
|  |                |               | 2           | <b>Complete</b><br>Attachment A, FLW Environmental Division 5-Year Storm Water Education Program, from the first reporting cycle has been incorporated into Attachment A3, Educational Campaign Plans. Attachment B, MS4 Outreach Activities, from the first reporting cycle is now Attachment A2, Outreach Activities and Distributed Materials Log. Attachment C, Publications List, from the first reporting cycle is now Attachment A1, Inventory List of Distribution Materials. Educational Campaign plans have been developed for residents, businesses, military and civilian personnel, and each of the campaign plans document purpose, targeted pollutant source, key messages, target audiences, goals, implementation mechanisms, and finally, evaluation of effectiveness (Attachment A3). | On-Going        |
|  |                |               | 3           | <b>Complete</b><br>Campaign plans have been revised this reporting year. See Attachment A3.  | Apr-12          |
| 3) Evaluate effectiveness of campaigns, potentially through resident surveys and participation levels at FLW sponsored storm water pollution prevention events | 4.2.1.1.6      | 1-5           | 1           | <b>On-Going</b><br>Task being tracked continuously in a spreadsheet that contains information regarding events held, dates, participants, and message, etc. (See Attachment B, MS4 Outreach Activities). A feedback form is in development and will be used at future events. The feedback form is scheduled to be completed by August 2010.   | On-Going        |
|  |                |               | 2           | <b>Complete</b><br>A summary for effectiveness evaluation of public education and outreach, and public involvement is available, see Attachment A3, Educational Campaign Plans, and Attachment A4, Effectiveness Evaluation of MCM 1 and 2. Note Attachment B is now Attachment A2.  | Jun-11          |
|  |                |               | 3           | <b>Reviewed/Complete</b><br>The 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4, summarizes accomplishments previously planned in the campaigns, and addressed the overall effectiveness.  | Apr-12          |

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|--|------------------------|---------------|-------------|---|-----------------|
| III. Students<br>1) Identify targeted pollutant sources to focus educational messages for students   | 4.2.1.1.1<br>4.2.1.1.3 | 1-5           | 1           | <b>Complete</b><br>Targeted pollutant sources for students are solid waste.   | Apr-10          |
|  |                        |               | 2           | <b>Reviewed</b><br>No change.   | Jun-11          |
|  |                        |               | 3           | <b>Reviewed</b><br>No change.   | Mar-12          |
| 2) Develop and/or adapt existing classroom curriculum for storm water pollution prevention   | 4.2.1.1.3              | 2-5           | 1           | Planned to begin in second reporting cycle  |                 |
|  |                        |               | 2           | <b>Complete</b><br>Refer to Attachment A3.4 , Educational Campaign Plan for Students.   | Jun-11          |
|  |                        |               | 3           | <b>Complete</b><br>Educational Campaign Plan for Students, Attachment A3.4 has been revised and includes the plan for upcoming years. Classroom curriculum this reporting year has included interactive activities that engage and teach students about Storm Water Pollution Prevention. Activities conducted this year are included in the 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4. | May-12          |
| 3) Potentially develop a rewards program for students and teachers that participate in public storm water pollution prevention activities around FLW             | 4.2.1.1.4              | 2-3           | 1           | Planned to begin in second reporting cycle  |                 |
|  |                        |               | 2           | <b>Amended</b><br>This was not planned to be complete in the second reporting cycle, nor will it be planned for the third reporting cycle.  | Amended         |
|  |                        |               | 3           | <b>Reviewed</b><br>No change.   | Mar-12          |
| 4) Evaluate effectiveness of classroom education, potentially through testing and/or student participation levels in storm water pollution prevention activities | 4.2.1.1.6              | 2-5           | 1           | Planned to begin in second reporting cycle  |                 |
|  |                        |               | 2           | <b>Complete</b><br>A process for evaluating effectiveness of outreach performed has been developed, although it will require continual modification as we learn how to do this effectively. See Attachment A4, Effectiveness Evaluation for MCM 1 and 2.  | Jun-11          |
|  |                        |               | 3           | <b>Reviewed/Complete</b><br>The 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4, summarizes accomplishments previously planned in the campaigns, and addressed the overall effectiveness.   | May-12          |

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|--|------------------------|---------------|-------------|--|-----------------|
| IV. Contractor<br>1) Initial training/review to include erosion and sediment control requirements, impacts to water quality, BMPs, and inspection and enforcement procedures | 4.2.1.1.3              | 1             | 1           | <b>Complete</b><br>Pre-construction meetings are now conducted for all site operators performing work on permitted sites which highlights the enforcement procedures at FLW, permit requirements, termination requirements, and provides an overview of the FLW SWPPP. In addition, a 5-year storm water education program has been developed for FLW for the following groups: Military/Civilian Personnel, Contractors, Residential, Businesses, and School Groups. See Attachments A1-A4 for more details.  | Jul-09          |
|  |                        |               | 2           | <b>Reviewed</b><br>The FLW Environmental Division 5-Year Storm Water Education Program for contractors has been incorporated into Educational Campaign Plan for Contractors, and is now Attachment A3.1.   | Jun-11          |
|  |                        |               | 3           | <b>Reviewed</b><br>See Educational Campaign Plan for Military/Civilian Personnel; Attachment A3.1.   | May-12          |
| 2) Erosion and sediment control trainings will be conducted for all audiences as needed (ex. new projects or new personnel, refresher courses)                               | 4.2.1.1.3              | 1-5           | 1           | <b>On-Going</b><br>Pre-construction meetings are now conducted for all site operators performing work on permitted sites which highlights the enforcement procedures, permit requirements, termination requirements, and provides an overview of the FLW SWPPP. It is planned that additional materials relating to karst topography, losing/gaining streams, and FLW spill response procedures and contacts will be included in future pre-construction meetings as they are developed. In addition, a 5-year storm water education program has been developed for FLW for the following groups: Military/Civilian Personnel, Contractors, Residential, Businesses, and School Groups. See Attachment A for more details. It is a permit requirement that the permittee have a responsible person named in the site SWPPP and that records are kept by the permittee of training, inspections, or modifications to the SWPPP. These permitted sites are regularly inspected (weekly, bi-weekly, or monthly depending on the sites compliance status) to ensure they are in compliance and are properly maintaining records. | On-Going        |
|  |                        |               | 2           | <b>Reviewed</b><br>Attachment A, FLW Division 5-Year Storm Water Education Program for personnel, is now Attachment A3.1, Military and Civilian Personnel (including Contractors), for the second reporting cycle.   | Jun-11          |
|  |                        |               | 3           | <b>Reviewed</b><br>Training plan for Contractors is outlined Attachment A.3.1; 2012 report in Attachment A4.   | Mar-12          |
| 3) Develop procedure for public reporting of erosion and sediment problems   | 4.2.1.1.4<br>4.2.4.1.3 | 2-3           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                        |               | 2           | <b>Complete</b><br>Added reporting instructions to the stormwater web page.  | Jun-11          |
|  |                        |               | 3           | <b>Complete</b><br>No change.  | Mar-12          |
| 4) Annual review of inspection checklists, records, and enforcement action to determine effectiveness of training on specific audiences                                      | 4.2.1.1.6              | 1-5           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                        |               | 2           | <b>Complete</b><br>Two additions were made, including the addition of a PowerPoint presentation for pre-construction meetings, as well as information of construction site BMPs that are appropriate for FLW.  | Jun-11          |
|  |                        |               | 3           | <b>Complete</b><br>See Attachment A4 - Effectiveness Evaluation of MCM 1 and 2.  | Jun-12          |

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|---|-------------------------------------|---------------|-------------|---|-----------------|
| V. Businesses<br>1) Identify businesses at FLW impacted for each Minimum Control Measure  | 4.2.1.1.2                           | 1             | 1           | <b>Complete</b><br>Identified businesses for the Minimum Control Measures are:<br>1) Army and Air Force Exchange Service (AAFES): Post Exchange, Frame Shop, Furniture Sales, Class Six, and Clothing Sales;<br>2) Restaurants: Burger King, Church's Chicken, Starbucks, Taco Johns, Baskin Robbins, Blimpies, Seattle's Best, O'Charleys, Pizza Hut, and Manchu Wok;<br>3) Medical: General Leonard Wood Army Community Hospital, Dental, Optical, and Vet Clinic;<br>4) Other Services: Mid Missouri Credit Union, Army National Bank, Post Office, Truman Education Center, Laundry Services (2 Facilities), Thrift Shop, Sunrise Communications, Mail Box It, and Forney Airfield;<br>5) MWR Services: Gas Stations (2 facilities), Auto Crafts/Car Wash, Swimming Pools (2 facilities), Pine Valley Golf Course, Miniature Golf Course, Recycling Center, Horse Stables, Outdoor Adventure Center, Movie Theaters (2 facilities), and Bowling Center. | Apr-10          |
|   |                                     |               | 2           | <b>Reviewed</b><br>Also see Attachment A3 , Educational Campaign Plan for each target audience.   | Jun-11          |
|   |                                     |               | 3           | <b>Reviewed</b><br>No change.   | Mar-12          |
| 2) Develop and/or adapt educational campaigns, brochures, and/or public workshop series for Businesses regarding pollution prevention and storm water management                              | 4.2.1.1.3                           | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                                     |               | 2           | <b>Complete</b><br>Educational campaign plans have been developed for Military/Civilian Personnel, Contractors, Residents, Businesses, and School Groups. Each of the campaign plans document purpose, targeted pollutant source, key messages, target audience, goals, and implementation mechanisms, and finally , evaluation of effectiveness. List of brochures and other publications utilized for outreach and education is available. (Attachment A1, Inventory List of Distribution Materials)  | Jun-11          |
|   |                                     |               | 3           | <b>Complete</b><br>Reviewed/No changes. See Attachment A3.3 Educational Campaign Plan.  |                 |
| 3) Potentially develop a Green Partners program for businesses at FLW to encourage best management practices for storm water and other resource protection activities                         | 4.2.1.1.4<br>4.2.2.1.3<br>4.2.2.1.4 | 2-3           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                                     |               | 2           | <b>Complete</b><br>Initiated communication with a local Big Piney River watershed group, but have not yet partnered with anyone. This is a desired action, that will be considered in the future as time and resources allows.  | Jun-11          |
|   |                                     |               | 3           | <b>Complete</b><br>No change.   | Mar-12          |
| 4) Conduct trainings and certification workshops for the Green Partners program, if program is implemented  | 4.2.1.1.4                           | 3-4           | 1           | Planned to begin in third reporting cycle   |                 |
|   |                                     |               | 2           | <b>Amended</b><br>This is no longer planned to be complete.   | Amended         |
|   |                                     |               | 3           | <b>Amended</b><br>This is no longer planned to be complete.   | Amended         |
| 5) Evaluate effectiveness of business education through methods such as surveys, participation in FLW sponsored storm water pollution prevention events, and other methods not yet determined | 4.2.1.1.6                           | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                                     |               | 2           | <b>Complete</b><br>A process for evaluating effectiveness of outreach performed has been developed, although it will require periodic modification as we learn how to do this effectively. See Attachment A4 , Effectiveness Evaluation MCM 1 and 2.  | Jun-11          |
|   |                                     |               | 3           | <b>Reviewed</b><br>See Attachment A4, 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2.   | May-12          |

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|--|----------------|---------------|-------------|---|-----------------|
| <b>BMP 1B - Distribute Education Materials (SWMP 7.1.2, page 18)</b>   |                |               |             |   |                 |
| 1) Complete survey of existing educational materials already developed by federal, state, and local organizations in relation to identified target pollutant sources and compile inventory list for distribution materials | 4.2.1.1.5      | 1             | 1           | <b>Complete</b><br>See Attachment C, Publications List. Survey of publications will be on-going and updated as new information becomes available.   | Feb-10          |
|  |                |               | 2           | <b>Reviewed</b><br>This has been updated and expanded. The 'year published' field was added so that we can insure that only the most current material is being used. Expansion includes addition of online resources and videos. Attachment C is now Attachment A1, Inventory List of Distribution Materials.   | Jun-11          |
|  |                |               | 3           | <b>Reviewed</b><br>Updated. See Attachment A1, List of Publications.  | Mar-12          |
| 2) Determine the target audiences and best distribution route for each targeted pollution source's educational materials   | 4.2.1.1.5      | 1             | 1           | <b>Complete</b><br>Target audiences and distribution routes are:<br>School Age - Flyers, Posters, Signage, and Website (wood.army.mil/dpwenv);<br>Residential - Flyers, Posters, Signage, and Website (wood.army.mil/dpwenv);<br>Businesses - Signage;<br>Military/Civilian Personnel - Environmental Compliance Officer's (ECO) Training Course, Pre-Construction Review Meetings, Website (wood.army.mil/dpwenv), and Signage;<br>Contractors - ECO Training Course, Pre-Construction Review Meetings, Website (wood.army.mil/dpwenv), and Signage. | Apr-10          |
|  |                |               | 2           | <b>Reviewed</b><br>The effectiveness of these distribution routes will be periodically reviewed to determine the distribution route with the greatest impact. The most appropriate mechanism for reaching targeted audiences is being evaluated. The distribution routes identified in the first reporting cycle are effective for school age audiences; they may not be adequate for military/civilian personnel, residential, businesses and contractors.   | Jun-11          |
|  |                |               | 3           | <b>Reviewed</b><br>Educational Campaign Plan has been modified to include appropriate and effective distribution methods. See Attachment A3.3.  | Mar-12          |
| 3) Distribute selected pollutant source reduction materials to target audiences through identified distribution methods  | 4.2.1.1.5      | 1-5           | 1           | <b>On-Going</b><br>Task being tracked continuously in a spreadsheet that contains information regarding events held, dates, participants, and materials distributed, etc. (See Attachment B MS4 Outreach Activities).   | On-Going        |
|  |                |               | 2           | <b>Complete</b><br>See Attachment A2, Outreach Activities and Distributed Materials Log, for detailed spreadsheet of materials that have been distributed. This attachment was previously attachment B.   | Jun-11          |
|  |                |               | 3           | <b>Complete</b><br>Distribution Methods are now included in the Education Campaign Plans, Attachment A3. Publications have been revised and are included in the List of Publications, Attachment A1.  | Mar-12          |

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|---|----------------|---------------|-------------|---|-----------------|
| <b>BMP 1C - Evaluate Success of Storm water Education (SWMP 7.1.3, page 19)</b>   |                |               |             |   |                 |
| 1) Conduct post-educational event and/or campaign response mechanism (ex. survey) for each targeted audience intended   | 4.2.1.1.6      | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                |               | 2           | <b>Complete</b><br>This has been completed for residential target audience; businesses will be evaluated in the third reporting cycle.  | Jun-11          |
|   |                |               | 3           | <b>Complete</b><br>Due to the loss of our contractor whose primary function was Public Outreach, this goal was not completed during this reporting year. Plan to have complete during reporting year 4.   | In Progress     |
| 2) Monitor adherence to policies and procedure compliance (ex. pollution prevention/good housekeeping practices within the installation)                                | 4.2.1.1.6      | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                |               | 2           | <b>In Progress</b><br>Unfortunately, time and resources never became available to accomplish this goal, but it will be in the third reporting cycle.  | In Progress     |
|   |                |               | 3           | <b>In Progress</b><br>A thorough review and analysis of existing policies and procedures for effectiveness has begun during this reporting year. Results will be included in the 4th year Annual Report.  | In Progress     |
| 3) Track participation levels at FLW storm water related meetings, events, survey responses, etc to determine whether target audiences are being reached and responding | 4.2.1.1.6      | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                |               | 2           | <b>Complete</b><br>See Attachment A2, Outreach Activities and Distributed Materials Log.  | Jun-12          |
|   |                |               | 3           | <b>Complete</b><br>Outreach Activities and Distributed Materials Log has been replaced with the Educational Campaign Plans, Attachment A3, the List of Publications, Attachment A1 and the 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4. | May-12          |
| Green shading indicates goal has been either completed or implemented   |                |               |             |   |                 |
| Orange shading indicates goals in progress, or amended  |                |               |             |   |                 |
| No shading indicates goals that will be implemented during future reporting cycles  |                |               |             |   |                 |

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| Measurable Goals   | Permit Section | Year Required | Report Year | Measurable Goal Status   | Completion Date |
|--|----------------|---------------|-------------|--|-----------------|
| <b>BMP 2A - Comply with Public Notice Requirements (SWMP 7.2.1, page 20)</b>   |                |               |             |  |                 |
| 1) Issue public notices for all public meetings related to the SWMP  | 4.2.2.1        | 1-5           | 1           | <b>On-Going</b><br>Task being tracked periodically in a spreadsheet that contains information regarding events held, dates, and how the event was advertised, etc. (See Attachment B - MS4 Outreach Activities). No public meetings held, to date.   | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>Attachment B, MS4 Outreach Activities, from the first reporting cycle is now Attachment A2, Outreach Activities and Distributed Materials Log.  | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>No SWMP public meetings were held during this reporting year.   | On-Going        |
| 2) Notify targeted audiences through various distribution methods to increase participation for public meetings, storm water activities and events | 4.2.2.1.2      | 1-5           | 1           | <b>On-Going</b><br>For Earth Day, targeted audiences notified through websites, radio, marquees, newspaper, and Garrison Commander's opening remarks. No public meetings held, to date.  | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>Strategy has been to collaborate with existing programs that are well attended. For example, we partnered with MWR for the Earth Day/Easter Egg Hunt. We also assisted with a walk/run at Earth Day and sponsored the Earth Day e-cycling collection. The Stream Team workshop we hosted was well announced by MDC, and to supplement, we wrote an article for the FLW Guidon newspaper, and announced it on our website. We also participated in the Health and Safety Fair, Missouri Frog Fest, and more. See Attachment A2, Outreach Activities and Distributed Materials Log for more info. | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>Efforts continued this reporting year to join forces with sponsored activities on FLW. On Earth Day, we held an interactive stormwater activity for School Aged Children. We also collaborated with the local FLW School and conducted Storm Drain Stenciling with 3rd and 4th grade classes. A Complete review of all activities is annotated in Attachment A.4 of this Annual Report in the respective target audience areas.   | On-going        |
| 3) Placement of SWMP in a location that has public access (ex: website, local library)   | 4.2.2.1        | 1-5           | 1           | <b>On-Going</b><br>SWMP will be placed on FLW's website and was available at the Earth Day event held 6/12/2010 along with comment cards for public feedback.  | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>No new activities required or performed.  | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>No new activities required or performed.  | On-Going        |

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|---|----------------|---------------|-------------|--|-----------------|
| <b>BMP 2B = Solicit Public Input and Opinion on the SWMP (SWMP 7.2.2m Page 20)</b>                        |                |               |             |  |                 |
| 1) Participation numbers from SWMP related meetings and events  | 4.2.2.1.5      | 1-5           | 1           | <b>On-Going</b><br>Five copies of the SWMP were provided for public review in a booth at the Earth Day event. A box for public comments was also provided; however, none were received. The booth also provided information on non-point source pollution and water quality.   | On-Going        |
|   |                |               | 2           | <b>On-Going</b><br>No new activities required or performed.  | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>No new activities required or performed.  | On-Going        |
| 2) Results from surveys (if appropriate) for effectiveness of educational campaigns to targeted audiences | 4.2.2.1.5      | 1-5           | 1           | Planned to begin in second reporting cycle.  |                 |
|   |                |               | 2           | <b>On-Going</b><br>Implementing educational campaigns, see Attachment A3, Educational Campaign Plans. Effectiveness will be evaluated periodically, and is summarized in Attachment A4, Effectiveness Evaluation of MCM 1 and 2.   | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>Educational Campaign Plans continued to be implemented during this reporting year, See Attachment A3, and the Effectiveness of the Program has been documented in the Effectiveness Evaluation of MCM 1 and 2, Attachment A4.   |                 |
| 3) Accessibility of SWMP information, including the use of FLW Website, newsletter articles, and events   | 4.2.2.1.2      | 1-5           | 1           | <b>On-Going</b><br>SWMP was available at the Earth Day event held 6/12/2010 along with comment cards for public feedback, MS4 fact sheets, and copies of the FLW permit. The SWMP is also available on the Environmental Division website: <a href="http://www.wood.army.mil/dpwenv">http://www.wood.army.mil/dpwenv</a> | On-Going        |
|   |                |               | 2           | <b>On-Going</b><br>The SWMP is made available by the outreach coordinator at all participated events.  | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>No change.  | On-Going        |

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|--|------------------------|---------------|-------------|---|-----------------|
| <b>BMP 2C - Identify and Establish Volunteer Opportunities for SWPP Activities (SWMP 7.2.3, page 21)</b>   |                        |               |             |   |                 |
| 1) Number of FLW supported opportunities identified and implemented for volunteers; such as community clean-ups, water quality monitoring, citizen watch groups, citizen panels, Missouri Stream Team formation, etc | 4.2.2.1.3<br>4.2.2.1.4 | 1-5           | 1           | <b>On-Going</b><br>Task being tracked periodically in a spreadsheet that contains information regarding events held, dates, and participant numbers, etc. (See Attachment A2, Outreach Activities and Distributed Materials Log). Four waterway cleanup events, one nature hike, one 5k walk/run, one teacher workshop, and one water quality monitoring class were held between 2009 and 2010.   | On-Going        |
|  |                        |               | 2           | <b>On-Going</b><br>Attachment B, MS4 Outreach Activities from the first reporting cycle, is now Attachment A2, Outreach Activities and Distributed Materials Log. Collaborating with the Army Community Service (ACS) Volunteer service to offer more volunteer opportunities for trash cleanup to military/civilian personnel. An article was published in the local newspaper to promote stream teams and the importance of water quality. Articles about environmental events such as World Water Day and National Cleanup Day are posted on the DPW Environmental website. Website has information for the public about how to get more involved. | On-Going        |
|  |                        |               | 3           | <b>On-Going</b><br>Activities and outreach opportunities for all targeted audiences that were conducted during this reporting year are now listed in the 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4.   | On-Going        |
| 2) Number of volunteers participating in FLW supported Storm Water Pollution Prevention activities   | 4.2.2.1.5              | 1-5           | 1           | <b>On-Going</b><br>Task being tracked continuously in a spreadsheet that contains information regarding events held, dates, and participant numbers, etc. (See Attachment B - MS4 Outreach Activities). Five waterway cleanup events were held between April 2009 and April 2010 with approximately 272 people participating. One water quality monitoring class was held that had 18 participants.   | On-Going        |
|  |                        |               | 2           | <b>On-Going</b><br>Waterway clean-ups were incorporated into both the Spring and Fall Cleanups, which incorporates military personnel from across the post. See Attachment A2, Outreach Activities and Distributed Materials Log for more information of the number of people were engaged in other activities.   | On-Going        |
|  |                        |               | 3           | <b>On-Going</b><br>The 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4, lists all activities conducted during this reporting year as well as the targeted audience and the number of personnel who attended.  | On-Going        |

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|---|----------------|---------------|-------------|--|-----------------|
| <b>BMP 2D - Evaluate Success of Public Involvement/Participation Activities (SWMP 7.2.4, page 21)</b>   |                |               |             |  |                 |
| 1) Track participation levels at FLW storm water related meetings, events, etc., to determine whether target audiences are being reached and responding | 4.2.2.1.5      | 1-5           | 1           | <b>On-Going</b><br>A system is in place to track participation numbers at storm-water related meetings and events and community outreach events. | On-Going        |
|   |                |               | 2           | <b>On-Going</b><br>See Attachment A4, Effectiveness Evaluation for MCM 1 and 2 for summary.  | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>See Attachment A4, 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2.                              | On-Going        |

Green shading indicates goal has been either completed or implemented

Orange shading indicates goals in progress, or amended

No shading indicates goals that will be implemented during future reporting cycles

TABLE 3  
 Illicit Discharge Detection and Elimination Minimum Control Measure  
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| Measurable Goals   | Permit Section | Year Required | Report Year | Measurable Goal Status   | Completion Date |
|--|----------------|---------------|-------------|--|-----------------|
| <b>BMP 3A - Storm Sewer System Map (SWMP 7.3.1, page 23)</b>   |                |               |             |  |                 |
| 1) Complete storm sewer system inventory and inspection map<br><br>See BMP 3A #7                               | 4.2.3.1.1      | 1             | 1           | <b>Complete</b>  | Jun-10          |
|  |                |               | 2           | <b>Reviewed</b><br>Updated multiple GIS layers including: Oil water separators; wash racks; grit chambers; and watershed boundaries.   | Jun-11          |
|  |                |               | 3           | <b>Reviewed</b><br>Updated multiple GIS layers to include new spills; No new changes to Outfall Map. See Attachment B1   | Oct-11          |
| 2) Establish process (i.e., Illicit Discharge Detection and Elimination Plan) to locate and map known outfalls | 4.2.3.1.1      | 1             | 1           | <b>Complete</b><br><ul style="list-style-type: none"> <li>• The existing process for mapping outfalls at FLW will be used. GIS specialists are employed by the Engineering Design Branch to keep utility data current.</li> <li>• GIS database, aerial photographs, and installation maps and records will be reviewed to identify known or potential outfalls. Reservoir pipes will be included as outfall locations. Mapping of boundary outfalls and outlets is complete</li> </ul> |                 |
|  |                |               | 2           | <b>Reviewed</b><br>No change to the IDDE plan.   | Jun-11          |
|  |                |               | 3           | <b>Reviewed</b><br>Staff has been allotted to review, update and improve process. Process has been documented and included in the written IDDE Procedure. See Attachment B3.   | Feb-12          |
| 3) Establish process to locate and map known ponds and structural pollution control devices                    | 4.2.3.1.1      | 1             | 1           | <b>Complete</b><br><ul style="list-style-type: none"> <li>• The existing process for mapping ponds and structural pollution control devices at FLW will be used.</li> <li>• Speak with senior facility members regarding institutional knowledge of known locations of ponds and structural pollution control devices.</li> <li>• GIS database aerial photographs, and installation maps and records will be reviewed to identify known or potential locations.</li> </ul>             |                 |
|  |                |               | 2           | <b>Reviewed</b><br>No change in this process.  | Jun-11          |
|  |                |               | 3           | <b>Reviewed</b><br>Process has been added to the written IDDE Procedure. See Attachment B3.  | Feb-12          |

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|---|----------------|---------------|-------------|--|------------------|
| 4) Establish and document a protocol for screenings, training for inspectors, and procedures for further investigation of illicit discharges such as monitoring, clean up, and enforcement.     | 4.2.3.1.1      | 1             | 1           | <b>Complete</b> <ul style="list-style-type: none"> <li>• Visual screening will be prioritized on problem areas as identified by smoke testing results, historical information, and public complaints.</li> <li>• Visual screenings will be documented through photographs of discharge along with written documentation regarding odor, appearance, and vegetation observations. GPS coordinates will be taken for the discharge site and added to a GIS database.</li> <li>• Inspectors will be trained on how to identify a potential illicit discharge and how to document the discharge.</li> <li>• Procedures for further investigation will involve the following: water sampling (if necessary); visual screening and/or sampling of known problem areas as staffing time allows or on a continual basis; continued smoke or dye testing; data review of land/building use, outfall locations, and smoke or dye testing results; and follow-up/periodic site visits to ensure discharge has been eliminated.</li> <li>• A complete list of illicit connection tests will be maintained along with a GIS database of discharge sites.</li> </ul> |                  |
|   |                |               | 2           | <b>Reviewed</b><br>No change in this process. All processes have been implemented.   | May-11           |
|   |                |               | 3           | <b>Reviewed</b><br>Protocol for screenings as well as procedures for investigations, monitoring, clean up , training and enforcement have been documented in the IDDE Procedure, See Attachment B3.  | Jan-12           |
| 5) Conduct training for appropriate personnel for locating structural pollution control devices, outfalls, and other system parameters  | 4.2.3.1.1      | 2             | 1           | Planned to begin in second reporting cycle   |                  |
|   |                |               | 2           | <b>Complete</b><br>Online training, workshops and mentoring for appropriate personnel has occurred to meet the training requirement.   | April - May 2011 |
|   |                |               | 3           | <b>Reviewed</b><br>No change.  | Feb-12           |
| 6) Visual screening at all outfalls over the life of the permit, with minimum of 25% of total area under MS4 screened annually to meet 100% screening requirement by end of 5-year permit cycle | 4.2.3.1.1      | 2-5           | 1           | Planned to begin in second reporting cycle   |                  |
|   |                |               | 2           | <b>Complete</b><br>Visual screening of 27% of the post has been completed. Screening has been broken down by watershed. Watersheds Hurd Hollow, McCourtney Hollow and Quarry Hollow make up 16,731 of the 61,410 acres located here on FLW. In those three watersheds there are 3 outfall boundary points; 4 NPDES outfall points; and 21 discharges points identified. totaling 28 sites documented with field notes and pictures.  | Jun-11           |
|   |                |               | 3           | <b>In Progress</b><br>Inspections were completed, however, due to circumstances beyond our control, hard copy reports were lost. Efforts have been made and will continue to be made to retrieve documents. In the event that they cannot be obtained, inspections will be re-done during this reporting year to the maximum extent practicable.   | In Progress      |
| 7) Update storm sewer system map  | 4.2.3.1.1      | 2-5           | 1           | Planned to begin in second reporting cycle   |                  |
|   |                |               | 2           | <b>Complete</b><br>All data is current. See Attachment B1, FLW Storm Sewer System Map .  | Jun-11           |
|   |                |               | 3           | <b>Complete</b><br>All data is current. See Attachment B1, FLW Storm Sewer System Map .  | Jan-12           |

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|--|----------------|---------------|-------------|--|-----------------|
| <b>BMP 3B - Regulatory Control and Enforcement Program (SWMP 7.3.2, page 24)</b> |                |               |             |  |                 |
| 1) Creation of illicit discharge reporting procedure (ex contact flow chart)     | 4.2.3.1.2      | 1             | 1           | <b>Complete</b><br>Identification and Reporting process was outlined in the SWMP and the Spill Prevention and Response Plan. See Attachment D for more details. Flow charts were also created outlining the reporting procedure for two scenarios: non-hazardous discharges and discharges involving oil, hazardous waste, or hazardous substances (See Figures 1 and 2). Reports of illicit discharges can be initiated telephonically, on the Environmental Division website: <a href="http://www.wood.army.mil/dpwenv">http://www.wood.army.mil/dpwenv</a> . A reporting form showing needed information can also be found at the web address.  | Sep-09          |
|  |                |               | 2           | <b>Reviewed</b><br>Attachment D, Illicit Discharge Reporting Procedure, in the first reporting cycle, is now Attachment B3 , Illicit Discharge Reporting Procedure, and Figures 1 and 2 are combined into Attachment B4, FLW Discharge Reporting Procedure.<br>Reports of illicit discharges are still initiated telephonically. Community members unfamiliar with DPW can report illicit discharges on the Environmental Division website ( <a href="http://www.wood.army.mil/dpwenv">http://www.wood.army.mil/dpwenv</a> );The Interactive Community Evaluation system is also available on-line or at kiosks located at community centers for the public to express environmental concerns. | May-11          |
|  |                |               | 3           | <b>Reviewed</b><br>Illicit Discharge reporting procedure has been fully established and incorporated in the written IDDE Procedure, See Attachment B2. Illicit Discharge Reporting Procedure Flow Chart is now Attachment B4.  | Jan-12          |
| 2) Identification and reporting process established for enforcement actions      | 4.2.3.1.2      | 1             | 1           | <b>Complete</b><br>As outlined in the SWMP, a four-level Continuum of Enforcement consisting of a Verbal Warning, a Letter of Warning, a Notice of Non-Compliance, and Regulatory Notification will be used. See Attachment E - SWMP BMP #3B for greater detail regarding each level in the Continuum of Enforcement for storm water quality.  | Sep-09          |
|  |                |               | 2           | <b>Reviewed</b><br>Attachment E, BMP #3B - Continuum of Enforcement Description, from the first reporting cycle has been replaced with Attachment C, Continuum of Enforcement PowerPoint slide.  | Jun-11          |
|  |                |               | 3           | <b>Reviewed</b><br>There are no changes to this procedure. The identification and reporting process has been documented in the written IDDE Procedure, Attachment B2, The Continuum of Enforcement Description is incorporated by reference in the IDDE Procedure and included as Attachment C of this report.   | Jan-12          |
| 3) Implementation of illicit discharge reporting procedure                       | 4.2.3.1.2      | 1-5           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                |               | 2           | <b>Complete</b><br>The reporting procedure is fully implemented.   | Jan-11          |
|  |                |               | 3           | <b>Reviewed</b><br>There are no changes to this procedure.   | Jan-12          |

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|---|----------------|---------------|-------------|--|-----------------|
| <b>BMP 3C - Illicit Discharge Detection and Elimination Plan (SWMP 7.3.3, page 26)</b>    |                |               |             |  |                 |
| 1) Complete list of existing information on illicit connection tests performed to date    | 4.2.3.1.3      | 1             | 1           | <b>On-Going</b><br>The FLW Directorate of Public Works (DPW) has been responsible for the installation infrastructure since its inception and the work process, which DPW is responsible for reviewing and executing, has been in place for decades. FLW is currently developing a Scope of Work to conduct smoke testing of the sanitary sewer system. The results of this testing should reveal illicit storm water connections to the sanitary sewer system and also reveal possible leaks/breaks in the sanitary collection system. This measurable goal is scheduled for completion in the third reporting cycle. | On-Going        |
|   |                |               | 2           | <b>Complete</b><br>This measurable goal was incomplete for last reporting cycle, but is now complete. From October 1st - April 30th, 2011, 341,525 feet of existing sanitary sewer system pipes were smoke tested. Final results are being analyzed and will be available for the third reporting year, along with a plan for corrective actions if necessary. In addition, visual screenings were performed in accordance with BMP 3D, however no follow up field tests were necessary.   | Apr-11          |
|   |                |               | 3           | <b>Complete</b><br>Findings of the smoke testing completed on 341,525 feet of existing sanitary sewer system pipes have been analyzed. The findings do not indicate any connections that will allow an illicit discharge of sewage into the storm water system. More information can be found on the Semi-Annual Inflow and Infiltration Report, Attachment B4.  | Feb-12          |
| 2) Maintain records of illicit discharges identified, enforcement, and corrective actions | 4.2.3.1.3      | 1             | 1           | Spreadsheet under development.   |                 |
|   |                |               | 2           | <b>Complete</b><br>Sanitary sewer overflow records are maintained by the Wastewater Program Manager and submitted to the state as required by MO Permit # 0029742. Spill records are maintained at the Environmental Branch office. All spills are properly cleaned and occasionally require enforcement actions, however, some spills reported did not list corrective actions taken. This deficiency has been noted and will be addressed in the third reporting cycle.  | May-11          |
|   |                |               | 3           | <b>Reviewed</b><br>The spill data base, which consists of spills, illicit discharges and sanitary sewer overflows is updated as instances occur. The data base includes type, amount and location of spills as well as corrective and preventive action. Sanitary sewer overflow records continue to be maintained by the Wastewater Program and submitted to the state per permitted requirements. Illicit discharges that were documented during the 2nd reporting year have been investigated and the corrective actions have been implemented and documented.  | Jun-12          |

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|---|----------------------------|---------------|-------------|--|-----------------|
| 3) Development of a reporting procedure (ex contacts flow chart) and continuum of enforcement | 4.2.3.1.3                  | 1             | 1           | <b>Complete</b><br>The Continuum of Enforcement is outlined in Section 7.3.2 - BMP #3B of the SWMP (Attachment E). The MS4 Program Manager will ensure the appropriate enforcement action is taken in accordance with the SWMP. The proponent for each of the established enforcement actions is established in the SWMP and is as follows: Verbal Warning - Chief, Energy, Environment, and Natural Resources Division; Letter of Warning - Director of Public Works; Notice of Non-Compliance - Deputy Garrison Commander; and Regulatory Notification - Appropriate Regulatory Agency. A flow chart was also created outlining the reporting procedure for the continuum of enforcement (see Figure 3). | Sep-09          |
|   |                            |               | 2           | <b>Reviewed</b><br>Attachment E and Figure 3, have been replaced with Attachment C, FLW Continuum of Enforcement.  | May-11          |
|   |                            |               | 3           | <b>Reviewed</b><br>The FLW Continuum of Enforcement Procedure, Attachment C is relevant to MCM 3,4 and 5 and has been incorporated into the written IDDE procedure, See Attachment B2. The Illicit Discharge Reporting Procedure, Attachment B3 is incorporated into the SOP and located on the FLW Storm Water Website.   | Jan-12          |
| 4) Trainings for staff/targeted audiences for illicit discharge detection                     | 4.2.3.1.3.1<br>4.2.3.1.3.5 | 2-3           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                            |               | 2           | <b>On-Going</b><br>Online training, workshops and mentoring for appropriate personnel has occurred to meet the training requirement for the year two reporting cycle.  | On-Going        |
|   |                            |               | 3           | <b>Reviewed/On Going</b><br>Training for staff and targeted audiences have been identified and included in the MS4 Training Plan , See Attachment A6 and referred to in the written IDDE Program, See Attachment B2.   | On-Going        |
| 5) Conduct field tests for illicit discharge and connections for existing storm system        | 4.2.3.1.3                  | 2-3           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                            |               | 2           | <b>Complete</b><br>From October 1st - April 30th, 2011, 341,525 feet of existing sanitary sewer system pipes were smoke tested. Final results are being analyzed and will be available for the third reporting year, along with a plan for corrective actions if necessary. In addition, visual screenings were performed in accordance with BMP 3D, however no follow up field tests were necessary.  | Apr-11          |
|   |                            |               | 3           | <b>Complete</b><br>Findings of the smoke testing completed on 341,525 feet of existing sanitary sewer system pipes have been analyzed. The findings do not indicate any connections that will allow an illicit discharge of sewage into the storm water system.  | Feb-12          |
| 6) Maintain records of illicit discharges identified, enforcement and corrective actions      | 4.2.3.1.3                  | 1-5           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                            |               | 2           | This is a duplicate of BMP 3C 2.) and will be removed during the next revision of the SWMP.  |                 |
|   |                            |               | 3           | This is a duplicate of BMP 3C 2.) and will be removed during the next revision of the SWMP which will begin in the 4th reporting year.   | Jan-12          |

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|---|----------------------------|---------------|-------------|---|-----------------|
| <b>BMP 3D - Identification of Non-storm Water Discharges and Flows (SWMP 7.3.4, page 27)</b>  |                            |               |             |   |                 |
| 1) Conduct investigation and evaluation of non-storm water discharges and flows   | 4.2.3.1.4<br>4.2.3.1.6     | 1-2           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                            |               | 2           | <b>Complete</b><br>An evaluation of non-storm water discharges that have the potential to be significant contributors of pollutants has been completed. Uncontaminated ground water infiltration, and springs were identified as potential sources of pollutants and require further investigation.   | May-11          |
|   |                            |               | 3           | <b>On-Going</b><br>Feasible mechanisms to assess local spring waters are being investigated by reviewing water quality data that has been made available. A Letter of Warning was issued in June 2010 referencing an inspection that was conducted that same year by the MO DNR. Letter of warning and FLW response is located in attachment D2 of this report. | Feb-12          |
| 2) Develop a standard operating procedure to address the impact of any non-storm water discharges or flows identified as significant contributors of pollutants to the system | 4.2.3.1.4<br>4.2.3.1.6     | 1-2           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                            |               | 2           | <b>In Progress</b><br>Uncontaminated ground water infiltration and springs are potential non-storm water discharges that may be significant contributors of pollutants. Further investigation is necessary to determining if an SOP is necessary and appropriate.   | In Progress     |
|   |                            |               | 3           | <b>On-Going</b><br>Water quality data of local springs is being analyzed to determine if a SOP is necessary.  | On-Going        |
| 3) Implement the standard operating procedure for significant non-storm water discharges and flows  | 4.2.3.1.3.4<br>4.2.3.1.3.6 | 3-5           | 1           | Planned to begin in third reporting cycle   |                 |
|   |                            |               | 2           | Planned to begin in third reporting cycle   |                 |
|   |                            |               | 3           | <b>On-Going</b><br>Water quality data of local springs is being analyzed to determine if a SOP is necessary.  | On-Going        |

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|--|----------------|---------------|-------------|---|-----------------|
| <b>BMP 3E - Evaluate the Illicit Discharge Detection and Elimination Program (SWMP 7.3.5, page 27)</b> |                |               |             |   |                 |
| 1) Monitor completion of measurable goals outlined in BMP #'s 3A-3D                                    | 4.2.3.1.3.6    | 1-5           | 1           | <b>Complete</b><br>BMP #3A - a storm sewer system inventory and inspection has been completed;<br>BMP #3B - an illicit discharge reporting procedure has been developed (See Figures 1 and 2) and an identification and reporting process has been established for enforcement actions (see Attachments E);<br>BMP #3C - a Continuum of Enforcement flowchart has been developed (see Figure3); and<br>BMP #3D - planned to begin in second reporting cycle.  | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>Figures 1 and 2, from the first reporting cycle, have been combined and replaced with Attachment B3, FLW Discharge Reporting Procedure.<br>Attachment E, BMP #3B - Continuum of Enforcement Description, and Figure 3, from the first year reporting cycle, have been combined and replaced with Attachment C, FLW Continuum of Enforcement slide.   | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>An inspection procedure is currently being created to monitor/evaluate the success of the Best Management Practices and determine measures to improve the success of the IDDE Program. Plan to fully implement in 4th reporting year. Checklists are an attachment to the written IDDE SOP, See Attachment B2 of this report.  | On-Going        |
| 2) Decrease in the number of illicit discharges into the installation's storm water system             | 4.2.3.1.3.6    | 1-5           | 1           | <b>On-Going</b><br>There has been no smoke testing to date so there is no data regarding decreases in the number of illicit discharges; however, two illicit discharges were found by contractors in January 2010 and were corrected by the base maintenance contractor. The FLW DPW has been responsible for the installation infrastructure since its inception and the work process, which DPW is responsible for reviewing and executing, has been in place for decades. FLW is currently developing a Scope of Work to conduct smoke testing of the sanitary sewer system. The results of this testing should reveal illicit storm water connections to the sanitary sewer system and also reveal possible leaks/breaks in the sanitary collection system. | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>Smoke testing of portions of the sanitary sewer system were completed in April 2011. Results are being evaluated and therefore, it is not possible to accurately address this measureable goal. Other than sewer system and spill issues, there were only a few reports of illicit discharges. They were investigated and determined to not be of significance.  | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>Findings of the smoke testing completed on 341,525 feet of existing sanitary sewer system pipes have been analyzed. The findings do not indicate any connections that will allow an illicit discharge of sewage into the storm water system. Reports of illicit discharges have decreased significantly during the current reporting year.   | Feb-12          |

Green shading indicates goal has been either completed or implemented

Orange shading indicates goals in progress, or amended

No shading indicates goals that will be implemented during future reporting cycles

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|---|----------------------------|---------------|-------------|--|-----------------|
| <b>BMP 4A - Regulatory Mechanism and Enforcement Procedures (SWMP 7.4.1, page 28)</b>   |                            |               |             |  |                 |
| 1) Complete evaluation of existing SWPPP in relation to the six minimum control measures  | 4.2.4.1.1                  | 2             | 1           | Planned for completion in second reporting cycle   |                 |
|   |                            |               | 2           | <b>Complete</b><br>SWPPP has been evaluated and amended.   | Jun-11          |
|   |                            |               | 3           | <b>Complete</b><br>After a review of SWPPP (amended 2011), FLW staff have determined that the amended SWPPP is inadequate and needs to be redone to be better aligned with MS4.  |                 |
| 2) Amend SWPPP, if necessary, to comply with MS4 permit conditions  | 4.2.4.1.1                  | 2-3           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                            |               | 2           | <b>Complete</b><br>SWPPP has been evaluated and amended.   | Jun-11          |
|   |                            |               | 3           | <b>In Progress</b><br>After a review of SWPPP (amended 2011), FLW staff have determined that the amended SWPPP is inadequate and needs to be redone to be better aligned with MS4.   |                 |
| 3) Implement administrative procedures/policies regarding the SWPPP, document inspections and enforcement procedures                              | 4.2.4.1.1.1<br>4.2.4.1.1.3 | 2-5           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                            |               | 2           | <b>On-Going</b><br>Implementation has begun, but this is an on-going effort that will take multiple years before fully implemented.  | On-Going        |
|   |                            |               | 3           | <b>On-Going</b><br>Procedures that outline inspection and documentation requirements are in place and fully implemented. Procedures for enforcement are in place, however, procedures for enforcement require further evaluation to ensure effectiveness. Plan to review and revise procedures have begun and will be put in place during the fourth reporting year.   | On-Going        |
| <b>BMP 4B - Construction Site Implementation of Erosion and Sediment Control BMPs (SWMP 7.4.2, page 31)</b>                                       |                            |               |             |  |                 |
| 1) Create a tracking system (ex database) that maintains records of all construction site operators' approved permits and BMPs implemented onsite | 4.2.4.1.6                  | 1             | 1           | <b>Complete</b><br><ul style="list-style-type: none"> <li>•Two electronic databases have been implemented for tracking land disturbance activities at FLW. The first database maintains a record of construction site operators' approved permits. Within this database is all critical information such as permit number, project location, and project POC.</li> <li>•The second electronic database tracks the compliance status of each permit and stage of enforcement being taken. This tracking system includes results of inspections, which includes adherence to BMPs and legal requirements.</li> <li>•From July 2009 to June 2010 there were 22 permits submitted, with 19 approved and three pending approval.</li> </ul> | Jun-10          |
|   |                            |               | 2           | <b>Reviewed</b><br>Approved permits are maintained in a spreadsheet, which is updated weekly. It includes the permit number, permit type, POCs and contact information, project location, as well as compliance status. In addition, a filing system for all site specific SWPPPs is maintained in the FLW Environmental Branch office, and is updated weekly.   | Jun-11          |
|   |                            |               | 3           | <b>Reviewed</b><br>One electronic database is in place that tracks construction sites, POCs, and all permit information. The data base is updated as needed. Compliance to established BMPs are tracked by conducted inspections of the construction sites.  | Jun-12          |

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|--|----------------|---------------|-------------|--|-----------------|
| 2) Complete site plan reviews to ensure compliance with SWPPP  | 4.2.4.1.3      | 1-5           | 1           | <b>On-Going</b><br>All submitted work plans are reviewed by DPW Environmental Branch to ensure compliance with the SWPPP.  | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>No change.  | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>No change.  | On-Going        |
| 3) Maintain records of on-going site inspections and enforcement actions for sediment and erosion control practices implemented onsite | 4.2.4.1.5      | 1-5           | 1           | <b>On-Going</b><br><ul style="list-style-type: none"> <li>•Records of site inspections and inspection reports are maintained in electronic and hardcopy formats. Compliance issues noted during inspections are recorded on the inspection report and compliance tracking database.</li> <li>•There were 731 inspections performed between July 2009 and June 2010.</li> <li>•There were three enforcement actions identified between July 2009 and June 2010. The three enforcement actions consisted of a warning letter from the DPW Environmental Branch Chief. The warning letters were issued due to an untimely response in addressing deficiencies observed during inspections for non-conformances with BMPs (i.e., silt fencing, ground cover).</li> </ul> | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>Site inspections are performed and tracked as required. In addition we have implemented a weekly compliance summary and warning system, to give the DPW and contractors a warning if their site is near non-compliance. Enforcement actions are not tracked in a database, but detailed records are kept.   | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>Inspections are completed, documented and e-mailed to the Contractor upon completion. Deficiencies noted on the inspections are documented in the e-mail and a follow up inspection is completed within a week to ensure that they have been corrected.   | On-Going        |
| <b>BMP 4C - Waste Controls for Construction Site Operators (SWMP 7.4.3, page 31)</b>   |                |               |             |  |                 |
| 1) Maintain records of all construction site operator's approved permits and BMPs  | 4.2.4.1.7      | 1-5           | 1           | <b>On-Going</b><br>Records of permits, permit applications, and SWPPPs (identifying BMPs to be implemented) are  | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>Approved permits are maintained in a spreadsheet, which is updated weekly. It includes the permit number, permit type, POCs and contact information, project location, as well as compliance status. In addition, a filing system for all site specific SWPPPs is maintained in the FLW Environmental office, and is updated weekly.  | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>Constructions site operator permits and permit required documents, to include the site specific SWPPPs, continue to be maintained on a spreadsheet and updated as needed.   | On-Going        |

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|--|----------------|---------------|-------------|--|-----------------|
| 2) Evaluate existing SWPPP in relation to the six minimum control measures and make necessary amendments for compliance with increased construction waste controls, if appropriate | 4.2.4.1.2      | 1-2           | 1           | <b>On-Going</b><br>The SWPPP has been evaluated, however, it has not yet been revised. Planned for completion in second reporting cycle.   | On-Going        |
|  |                |               | 2           | <b>Complete</b><br>SWPPP has been evaluated and amended.   | Apr-11          |
|  |                |               | 3           | <b>In Progress</b><br>After a review of SWPPP (amended 2011), FLW staff have determined that the amended SWPPP is inadequate and needs to be redone to be better aligned with MS4.   | Jun-12          |
| 3) Inspect projects on FLW for construction waste control BMPs on a routinely scheduled basis, potentially integrated with erosion and sediment control inspection process         | 4.2.4.1.2      | 2-5           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                |               | 2           | <b>On-Going</b><br>Process has begun, but there is significant work to do for full implementation.   | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>No change.  |                 |
| <b>BMP 4D -Procedure for Site Plan Reviews (SWMP 7.4.4, page 32)</b>   |                |               |             |  |                 |
| 1) Continue site reviews for projects >1 acre of land disturbance  | 4.2.4.1.3      | 1-5           | 1           | <b>On-Going</b><br>All projects >1 acre of land disturbance are reviewed. Between July 2009 and June 2010 there were 46 construction sites > 1 acre that required land disturbance permits and were inspected while the land disturbance permit was active.  | On-Going        |
|  |                |               | 2           | <b>On-Going</b><br>No changes  | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>During this reporting year, 19 Land Disturbance permits have been issued. All sites are inspected and documented as required by the Industrial Permit.  | On-Going        |
| 2) Review of current site review process and identification of policy changes, if needed   | 4.2.4.1.3      | 1-2           | 1           | Planned for completion in second reporting cycle   |                 |
|  |                |               | 2           | <b>Complete</b><br>We now do site inspections following storm events, whereas previously it was a regularly scheduled time not associated with run-off events. In addition, DPW has taken ownership over permits for troop projects, because we discovered that troops were often unavailable to complete the project and weren't always available to perform inspections. | Jun-11          |
|  |                |               | 3           | <b>Complete</b><br>Inspections continue to be conducted as required. No policy changes have been put into place during this reporting year.  | Jun-12          |
| 3) If determined appropriate, develop storm water project submittal checklist for storm water management and compliance with MS4 permit conditions for use during site review      | 4.2.4.1.3      | 2-3           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                |               | 2           | <b>In Progress</b><br>This was postponed during second reporting year due to staff member's military deployment.   | In Progress     |
|  |                |               | 3           | <b>Complete</b><br>A review of this Measurable Goal was conducted during this reporting period and it was concluded that the current process in place are sufficient and a checklist is not necessary.   | Complete        |

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|---|----------------|---------------|-------------|--|-----------------|
| <b>BMP 4E - Establishment of Procedures for Receipt and Consideration of Noncompliance (SWMP 7.4.5, page 33)</b>        |                |               |             |  |                 |
| Create a SWPPP report mechanism (ex: phone line, webpage form) for public report construction site complaints.          | 4.2.4.1.4      | 1             | 1           | <b>On-Going</b><br>Not yet complete. Alternatives are being evaluated. The installation does have a system for public comments and it is still being determined if this system is appropriate for FLW.   | On-Going        |
|   |                |               | 2           | <b>Complete</b><br>A stormwater reporting process was added to the website. In addition, FLW maintains an online reporting system for complaints of all sorts called Interactive Customer Evaluation (ICE).  | May-11          |
|   |                |               | 3           | <b>Complete</b><br>No change.  | Jun-12          |
| 2) Create policy and procedures to track complaint reports from all installation construction site SWPPP non-compliance | 4.2.4.1.4      | 1-2           | 1           | Planned for completion in second reporting cycle   |                 |
|   |                |               | 2           | <b>Complete</b><br>The procedure for construction site complaints is the same procedure in place for spills . See Attachment B3 , FLW Discharge Reporting Procedure.   | Feb-11          |
|   |                |               | 3           | <b>Complete</b><br>Procedure is still in place. See Attachment B3, FLW Discharge Reporting Procedure.  |                 |
| 3) Create procedures to track information from construction site inspections and enforcement actions                    | 4.2.4.1.7      | 1-2           | 1           | <b>Complete</b><br>A procedure has been developed to utilize a standardized checklist when inspecting permitted land-disturbance sites. Inspection reports are generated for each site, and compliance information is added to the tracking database. Copies of site inspection checklists and inspection reports are retained for future reference. | Jul-10          |
|   |                |               | 2           | <b>Complete</b><br>In addition to the previous year's efforts, we have revised and improved the compliance tracking spreadsheet.   | Feb-11          |
|   |                |               | 3           | <b>Complete</b><br>Inspections are completed, documented and forwarded to Contract POC via e-mail. Deficiencies are noted on inspection form with instruction to implement corrective action. Follow up inspections are conducted within a week ensure that corrective action was completed.   | Jun-12          |
| 4) Maintain records for all inspections and enforcement actions for sediment and erosion control practices              | 4.2.4.1.6      | 1-5           | 1           | <b>On-Going</b><br>Records of site inspections and inspection reports are maintained in electronic and hardcopy formats. Compliance issues noted during inspections are recorded on the inspection report and compliance tracking database. There were 731 inspections performed between June 2009 and June 2010.                                    | On-Going        |
|   |                |               | 2           | <b>On-Going</b><br>No changes.   | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>No changes. All inspections are conducted, documented and forwarded as stated in 4E 3   | On-Going        |

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|---|----------------|---------------|-------------|---|-----------------|
| <b>BMP 4F - Establishment of Procedures for Site Inspection and Enforcement (SWMP 7.4.6, page 33)</b> |                |               |             |   |                 |
| 1) Maintain copies of all construction site operator's permits and BMPs within the installation       | 4.2.4.1.6      | 1-5           | 1           | <b>On-Going</b><br>Records of permits, permit applications, and SWPPPs (identifying BMPs to be implemented) are maintained at the DPW Environmental Branch.   | On-Going        |
|   |                |               | 2           | <b>On-Going</b><br>No change.   | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>No change.   | On-Going        |
| 2) Develop tracking mechanism (ex database) for inspection and enforcement action records             | 4.2.4.1.6      | 1-2           | 1           | <b>Complete</b><br>An electronic database has been developed which tracks new and repeated non-conformances identified at permitted sites along with the status of enforcement action, if any, that has been taken for each site.   | Aug-09          |
|   |                |               | 2           | <b>Complete</b><br>No change.   | Dec-10          |
|   |                |               | 3           | <b>Complete</b><br>Electronic data base remains to be updated as necessary and includes all permitted sites. Enforcement for non-compliance is tracked via inspection forms in which the deficiency is documented and forwarded to the Contract POC.  | Jun-12          |
| 3) Ensure inspectors for runoff control SWPPP and BMP evaluations have appropriate training           | 4.2.4.1.6      | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                |               | 2           | <b>On-Going</b><br>Inspectors on DPW owned permits have obtained certifications. In addition, contractors and troops are not issued their permit until they attend the permit issuance meeting, where they are trained on enforcement procedures, proper inspections techniques, etc. In addition, we have added more training materials to the permit-issuance meeting, including a new presentation slide, as well as the distribution of materials to the contractor on sediment control techniques. | On-Going        |
|   |                |               | 3           | <b>Complete/On-Going</b><br>DPW inspectors have been trained and certified. Contractors and troops are trained as deemed appropriate during permit issuance meetings. A roster of employees who attended the meetings and are trained is maintained by the Land Disturbance Project Manager.  | On-Going        |
| 4) Development of administrative procedure for internal review, enforcement mechanisms and sanctions  | 4.2.4.1.6      | 1-3           | 1           | Planned for completion in Year 2 (Spring 2011)  |                 |
|   |                |               | 2           | <b>Complete</b><br>DPW Staff is engaged with the permit holder, and performing internal review from the beginning to the end of the project. Letters for enforcement actions are complete, and include mechanisms for enforcement. This process will continue to evolve as our program matures.   | Aug-10          |
|   |                |               | 3           | <b>Complete</b><br>DPW Staff continue to enforce sanctions to the maximum extent practicable.   |                 |

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|---|----------------|---------------|-------------|---|-----------------|
| <b>BMP 4G - Evaluate the Success of Construction Site Storm Water Runoff Control (SWMP 7.4.7, page 34)</b>                        |                |               |             |   |                 |
| 1) Adherence to the SWPPP at each construction site, which is tracked through the inspection and enforcement reporting procedures | 4.2.4.1.7      | 1-5           | 1           | <b>On-Going</b><br>Records of site inspections and inspection reports are maintained in electronic and hardcopy formats. Compliance issues noted during inspections are recorded on the inspection report and compliance tracking database. In addition, it is a permit requirement that the permittee have a responsible person named in the site SWPPP and that records are kept by the permittee of training, inspections, or modifications to the SWPPP. These permitted sites are regularly inspected (weekly, bi-weekly, or monthly depending on the sites compliance status) to ensure they are in compliance and are maintaining records. | On-Going        |
|   |                |               | 2           | <b>On-Going</b><br>No change.   | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>No change.   | On-Going        |
| Green shading indicates goal has been either completed or implemented   |                |               |             |   |                 |
| Orange shading indicates goal that was scheduled for completion this reporting cycle but not completed                            |                |               |             |   |                 |
| No shading indicates goals that will be implemented during future reporting cycles  |                |               |             |   |                 |

TABLE 5  
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| Measurable Goals   | Permit Section       | Year Required | Report Year | Measurable Goal Status  | Completion Date |
|--|----------------------|---------------|-------------|---|-----------------|
| <b>BMP 5A - Regulatory Mechanism for Addressing Post-Construction Runoff (SWMP 7.5.1, page 35)</b> |                      |               |             |   |                 |
| 1) Develop command policy statement addressing post construction control requirements              | 4.2.5.1<br>4.2.5.1.2 | 2             | 1           | <b>Complete</b><br>Garrison Command Policy No. 200-1, Fort Leonard Wood Environmental Management Strategy. See Attachment F for more details about this policy.   | Jun-09          |
|  |                      |               | 2           | <b>Complete</b><br>Attachment F, Garrison Command Policy #200-1 from the first reporting year is now Attachment E4. In addition to the Command Policy No. 200-1, Section 438 of the Energy Independence and Security Act (EISA) 2007 requires that development and redevelopment projects on federal facilities maintain predevelopment hydrology, or no net increase in runoff. Additional LID policies and directives are included in the attachments, including:<br><ul style="list-style-type: none"> <li>•Attachment E1, EPA Factsheet: Technical Guidance on Section 438 of EISA</li> <li>•Attachment E2, DoD Memorandum: Implementation of Section 438 of EISA</li> <li>•Attachment E3, DA Memorandum: Managing Stormwater with Low Impact Development.</li> </ul>   | Jun-11          |
|  |                      |               | 3           | <b>Complete</b><br>No change.   | Jun-12          |
| 2) Review existing mechanisms for inspection and enforcement of post construction controls         | 4.2.5.1<br>4.2.5.1.2 | 1-2           | 1           | Planned for completion in second reporting cycle  |                 |
|  |                      |               | 2           | <b>In Progress</b><br>This measurable goal is quite involved and complicated. It was determined that the current contract language for major construction projects was inadequate, that design and construction needed to be completely overhauled, and that enforcement of new requirements was necessary throughout the entire project, from conceptual phase to construction and post construction. We are working with the USACE, who does all of our major construction projects, on updating the contract language. This should be fully implemented in contract language in the third reporting cycle. To enforce the new requirements during the planning and design phase, the stormwater program manager has been reviewing the engineering and design analyses of projects, attending planning and design Charettes for new construction projects, and making it clear that LID is required. During the next several years, we will continue to reinforce what we have established and work to improve our ability to inspect and enforce. | In Progress     |
|  |                      |               | 3           | <b>In Progress</b><br>Contract language for major construction has been amended as planned, and enforcement is taking place to the maximum extent practicable as described in year two report. A thorough evaluation of measurable goals has determined that inspections are not feasible at the current state of program development. The Enforcement Procedure of both pre and post construction controls is currently being reviewed and revised and will be included in the revised edition of the SWMP.  | In Progress     |

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|---|--------------------------|---------------|-------------|---|-----------------|
| 3) Implement inspection and enforcement policy addressing post construction controls  | 4.2.5.1<br>4.2.5.1.2     | 2-4           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                          |               | 2           | <b>Complete</b><br>Implemented.   | Aug-10          |
|   |                          |               | 3           | <b>Reviewed/In Progress</b><br>Implementation and inspection elements cannot fully begin until Construction Phase and BMPs are fully developed and implemented. A inspection process and revised Enforcement Process is currently in the review and development phase and will be incorporated in the revised version of the SWMP.  | Jun-12          |
| 4) Train personnel/contractors on policies and procedure related to post construction controls  | 4.2.5.1<br>4.2.5.1.2     | 2-4           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                          |               | 2           | <b>On-Going</b><br>FLW has submitted LID and MS4 permit requirement information to USACE, participated in a series of meeting with the FLW Master Planner to educate him on LID. In the future, we will continue to work closely with USACE on major construction projects.   | On-Going        |
|   |                          |               | 3           | <b>On-Going</b><br>USACE Personnel have been trained and acquired the skills to plan for and put into place post construction controls. 2 DPW Personnel will receive Low Impact Development Training during FY13.   | On-Going        |
| <b>BMP 5B - Development and Implementation of Structural and/or Nonstructural BMPs (SWMP 7.5.2, page 38)</b>  |                          |               |             |   |                 |
| 1) Review and evaluate structural and non-structural BMPs<br>2) Develop/Identify standard specifications for selected structural BMPs<br>3) Develop/Identify standard specifications for selected non-structural BMPs | 4.2.5.1.4<br>4.2.5.1.6.2 | 1-2           | 1           | Planned for completion in second reporting cycle  |                 |
|   |                          |               | 2           | <b>In Progress</b><br>While this process has begun, it is still uncertain how to make structural and non-structural BMPs work in our landscape. Given the clay soils, steep slopes, and karst topography, we are still reviewing and investigating BMPs that are appropriate for our conditions. This measurable goal will likely not be complete, and should have been an ongoing goal instead of being scheduled for completion by the end of year two.   | In Progress     |
|   |                          |               | 3           | <b>In progress</b><br>While we have made some progress since year 2 report, as we have numerous bio-retention basins as well as other BMPs installed. We are still actively working to find additional BMPs that are appropriate for FLW region and our maintenance capacity. USACE is in the process of developing standard details for several BMPs that we have deemed acceptable, and will continue to develop additional standard details as appropriate and acceptable BMPs are identified. As stated last year, this measurable goal should have been an on-going requirement, since making such drastic changes takes time. | In Progress     |

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|---|--------------------------|---------------|-------------|--|-----------------|
| 4) Ensure adequate training for impacted audiences (See 1A) on long-term BMP site planning, design, and implementation/construction | 4.2.5.1.4<br>4.2.5.1.6.2 | 2-3           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                          |               | 2           | <b>Complete</b><br>We have worked with USACE, and they are in the process of getting their personnel trained. Master Planner is attending LID training the last week of June, 2011. In addition, the installation has set up a series of meetings with USACE to evaluate stormwater technologies. Finally, the stormwater program manager is attending planning and design meetings and reviewing stormwater designs to help insure compliance with stormwater requirements. | Jun-11          |
|   |                          |               | 3           | <b>On-Going</b><br>USACE Personnel have been trained and acquired the skills to plan for and put into place post construction controls. 2 DPW Personnel will receive Low Impact Development Training during FY13. The USACE have begun reviewing the APWA BMP Manual and are currently in the process of creating a BMP Manual that will be consistent with the FLW Region.  | On-Going        |
| 5) Incorporate post-construction structural and non-structural BMP requirements into site planning and review process               | 4.2.5.1.4<br>4.2.5.1.6.2 | 1-2           | 1           | Planned for completion in second reporting cycle   |                 |
|   |                          |               | 2           | <b>Complete</b><br>It has been incorporated into NEPA, in the process of putting it into contract language, and installation staff attend all planning and design meetings for all projects to enforce the requirements. .   | Jun-11          |
|   |                          |               | 3           | <b>Complete</b><br>Installation staff continue to attend planning and design meetings and speak to all LID requirements and control measures. The current enforcement procedure is being reviewed and revised.   |                 |
| 6) Develop inspection and operations and maintenance programs for long-term site BMPs   | 4.2.5.1.4<br>4.2.5.1.6.2 | 2             | 1           | Planned for completion in second reporting cycle   |                 |
|   |                          |               | 2           | <b>Incomplete</b><br>This goal is incomplete and should have been scheduled for the fourth reporting cycle.  |                 |
|   |                          |               | 3           | <b>Incomplete</b><br>This measurable goal is deemed inappropriate for this permit cycle and will be a priority during the next permit cycle and the incorporate into the revised SWMP.   |                 |
| 7) Implement inspection and operations and maintenance programs for long-term site BMPs   | 4.2.5.1.4<br>4.2.5.1.6.2 | 3-5           | 1           | Planned to begin in third reporting cycle  |                 |
|   |                          |               | 2           | This will likely not begin until the fifth reporting cycle.  |                 |
|   |                          |               | 3           | <b>Reviewed</b><br>No change.  | Jun-12          |

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|---|----------------|---------------|-------------|--|-----------------|
| <b>BMP 5C - Long-term Operation and Maintenance of BMPs (SWMP 7.5.3, page 40)</b>   |                |               |             |  |                 |
| 1) Evaluate existing FLW SWPPP and make revisions as necessary to provide for long-term operation and maintenance of BMPs and compliance with the FLW command policy statement for post-construction controls | 4.2.5.1.3      | 1             | 1           | <b>Complete</b><br>Completed a review of the FLW SWPPP evaluating it against the permit requirements of the Land Disturbance Permit, the MS4 Permit, minimum control measures in the SWMP, and the Industrial Permit (SIC code 9711). The review and evaluation included recommendations for changes to the SWPPP. | Apr-10          |
|   |                |               | 2           | <b>Reviewed</b><br>SWPPP is complete and now incorporates each of the six MCMs.  | Jun-11          |
|   |                |               | 3           | <b>Incomplete</b><br>After a review of SWPPP (amended 2011), FLW staff have determined that the amended SWPPP is inadequate and needs to be redone to be better aligned with MS4.  |                 |
| 2) Develop tracking mechanism (ex database) for all implemented long-term structural and nonstructural BMPs, and inspection and enforcement actions on the installation                                       | 4.2.5.1.3      | 1-2           | 1           | Planned for completion in second reporting cycle   |                 |
|   |                |               | 2           | <b>Complete</b>  | Jun-11          |
|   |                |               | 3           | <b>Complete</b><br>Data base continues to improve as program develops.   | Jun-12          |
| 3) Develop and implement program for inspection and maintenance of long-term control BMPs   | 4.2.5.1.3      | 2-5           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                |               | 2           | <b>On-Going</b><br>Work has begun, but is not yet complete. This will likely be a process that will take several years to fully implement.   | On-Going        |
|   |                |               | 3           | <b>Reviewed</b><br>No change.  |                 |
| <b>BMP 5D - Evaluate the Success of Post-Construction Runoff Controls (SWMP 7.5.4, page 40)</b>   |                |               |             |  |                 |
| 1) Adherence to the Post Construction Runoff Control Regulatory Mechanisms established and implemented on the installation (identified in BMP 5A)   | 4.2.5.1.7      | 1-5           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                |               | 2           | <b>On-Going</b><br>This will not truly begin until the program is fully established and implemented.   | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>No change.  | On-Going        |
| 2) Successful long-term operation and maintenance of structural and nonstructural BMPs, as identified in BMPs 5B and 5C   | 4.2.5.1.7      | 1-5           | 1           | Planned to begin in second reporting cycle   |                 |
|   |                |               | 2           | <b>On-Going</b><br>This will not truly begin until the program is fully established and implemented.   | On-Going        |
|   |                |               | 3           | <b>On-Going</b><br>No change.  | On-Going        |
| Green shading indicates goal has been either completed or implemented   |                |               |             |  |                 |
| Orange shading indicates goal that was scheduled for completion this reporting cycle but not completed  |                |               |             |  |                 |
| No shading indicates goals that will be implemented during future reporting cycles  |                |               |             |  |                 |

TABLE 6  
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| Measurable Goals  | Permit Section | Year Required | Report Year | Measurable Goal Status   | Completion Date |
|---|----------------|---------------|-------------|--|-----------------|
| <b>BMP 6A - Municipal Operations and Maintenance Program (SWMP 7.6.1, page 41)</b>  |                |               |             |  |                 |
| 1) Review existing Pollution Prevention/Good Housekeeping policies on FLW and identify opportunities for incorporating storm water pollution prevention practices | 4.2.6.1.1      | 1             | 1           | <b>Complete</b><br>Completed a review of the FLW SWPPP evaluating it against the permit requirements of the Land Disturbance Permit, the MS4 Permit, minimum control measures in the SWMP, and the Industrial Permit (SIC code 9711). The review and evaluation included recommendations to create additional SWPPPs or develop Pollution Prevention and Good Housekeeping Guidance document for specific activities at FLW. In addition, the FLW Environmental Management Strategy, Garrison Command Policy #200-1 was signed by the Garrison Commander on June 9, 2009. See Attachment F for more details on Garrison Command Policy #200-1.   | Apr-10          |
|   |                |               | 2           | <b>Reviewed</b><br>Attachment F, Garrison Command Policy #200-1 from the first reporting cycle is now Attachment E4.   | Jun-11          |
|   |                |               | 3           | <b>Reviewed</b><br>Garrison Command Policy #200-1 from the first reporting cycle is still in affect, See Attachment E4. The Capacity, Management, Operations and Maintenance (CMOM) was reviewed and incorporated by reference in Pollution Prevention/Good Housekeeping Procedure that has been written and is included in this report. See Attachment F2.  | Mar-12          |
| 2) Identify and create inventory of municipal operations and industrial facilities impacted by the operation and maintenance program BMP                          | 4.2.6.1.1      | 1             | 1           | <b>Complete</b><br>An Environmental Management System (EMS) was developed for FLW. The EMS is the part of the Installation's overall management system that integrates environmental concerns and issues in the organization's management processes. The EMS addresses organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing, and maintaining environmental policy.<br>In developing the Installation's EMS, all operational activities on the Installation were reviewed to determine the risk of each for adverse environmental impacts, including impacts to water quality. A listing of the aspects and impact of those activities determined to have an associated environmental risk was then developed and incorporated into the EMS. An extract of those activities having a potential risk to water quality is included in this report as Attachment G. | Apr-10          |
|   |                |               | 2           | <b>Reviewed</b><br>Attachment G, Typical DoD Installation Functional Areas and Processes, is now Attachment B2.  | Jun-11          |
|   |                |               | 3           | <b>Reviewed</b><br>Garrison Command Policy #200-1 from the first reporting cycle is still in affect, See Attachment E4. Typical Department of Defense Installation Functional Area and Processes has been created and reviewed. Attachment has been relocated from Attachment B2 to Attachment F1.   | Jan-12          |

TABLE 6  
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| Measurable Goals   | Permit Section         | Year Required | Report Year | Measurable Goal Status  | Completion Date |
|--|------------------------|---------------|-------------|---|-----------------|
| 3) Develop and implement controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, parking lots, maintenance and storage yards, fleet or maintenance shops and other operational areas operated by FLW | 4.2.6.1.2<br>4.2.6.1.4 | 2-3           | 1           | Planned to begin in second reporting cycle  |                 |
|  |                        |               | 2           | <b>Complete</b><br><ul style="list-style-type: none"> <li>•Street and parking lot cleaning occurs periodically without wash water;</li> <li>•Fuel dispensing areas are roofed;</li> <li>•Eco-friendly salt or alternatives are used to de-ice roads;</li> <li>•Spill kits are available at maintenance shops and operational areas;</li> <li>•Vehicle and equipment maintenance is conducted in approved maintenance shops, not in residential areas;</li> <li>•Used oil, antifreeze, batteries, solvents, etc are properly recycled; and</li> <li>•Parked equipment traps for fluid drips of are being provided and maintained.</li> </ul> | Jun-11          |
|  |                        |               | 3           | <b>Reviewed</b><br>The CMOM has been reviewed to ensure that the Department of Public of Works has implemented procedures IAW the permitted requirements. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, parking lots, maintenance and storage yards, fleet or maintenance shops and other operational areas to include the CMOM have been developed and implemented and are incorporated by reference in in the Pollution Prevention/Good Housekeeping written procedure. See Attachment F1.  | Mar-12          |
| 4) Develop and implement procedure for treatment and/or proper disposal of waste removed from the storm sewer system   | 4.2.6.1.5              | 2-4           | 1           | Planned to begin in second reporting cycle  |                 |
|  |                        |               | 2           | <b>Complete</b><br>Issues are reported to the Environmental Division. The treatment or disposal is determined by the waste issue.   | Jun-11          |
|  |                        |               | 3           | <b>Reviewed</b><br>The treatment or disposal of waste from the storm sewer system is included in the Hazardous Waste SOP and referenced to in the Pollution Prevention/Good Housekeeping written procedure, Attachment F1.  | Jan-12          |
| 5) Develop and implement procedures to ensure that new and existing flood management projects are assessed for impacts on water quality or incorporation of water quality protection practices   | 4.2.6.1.6              | 2             | 1           | Planned for completion in second reporting cycle  |                 |
|  |                        |               | 2           | <b>Complete</b><br>Annex F (Natural Hazards Plan) of the IMCOM & FLW Emergency Operations Plan addresses all issues pertaining to flood management. In addition, a GIS layer is under development that documents all flood prone areas. Finally, we are now working with the USACE to improve our protection of navigable waterways.  | Jun-11          |
|  |                        |               | 3           | <b>Reviewed</b><br>The GIS Layer that documents flood prone areas is still under construction and plan to have completed during the 4th reporting year. The Pollution Prevention/Good Housekeeping SOP has been written and incorporates by reference Annex F (Natural Hazards Plan) of IMCOM and FLW Emergency Operations Plan and the CMOM which outlines the procedures for response and corrective action of Sewer Overflows. See Attachment F1.  | Mar-12          |

TABLE 6  
Pollution Prevention/Good Housekeeping Minimum Control Measure  
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| Measurable Goals   | Permit Section | Year Required | Report Year | Measurable Goal Status   | Completion Date |
|--|----------------|---------------|-------------|--|-----------------|
| 6) Continue compliance with FLW Spill Prevention and Response Plan   | 4.2.6.1.1      | 1-5           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                |               | 2           | <b>Complete</b><br>The FLW SPRP has been implemented and remains in compliance.  | Jun-11          |
|  |                |               | 3           | <b>Reviewed</b><br>The FLW SPRP has been implemented and incorporated by reference in the Pollution Prevention/Good Housekeeping SOP. See Attachment F1.   | Mar-12          |
| <b>BMP 6B - Pollution Prevention/Good Housekeeping Training Program (SWMP 7.6.2, page 42)</b>                              |                |               |             |  |                 |
| 1) Identify existing and available pollution prevention/good housekeeping materials from federal, state, and local sources | 4.2.6.1.1      | 1             | 1           | <b>Complete</b><br>See Attachment C (Publications List) for a listing of brochures and other materials available for distribution. Survey of publications will be on-going and updated as new information becomes available.   | Feb-10          |
|  |                |               | 2           | <b>Complete</b><br>Attachment C, Publication List from the first reporting cycle is now Attachment A1, Inventory List of Distribution Materials.   | Jun-11          |
|  |                |               | 3           | <b>Complete</b><br>Attachment A1, Inventory List of Publications has been reviewed and revised. The list includes training materials for each MCM and each targeted audience.  | Mar-12          |
| 2) Identify distribution methods to each targeted audiences (ex: workshops, posters, etc)                                  | 4.2.6.1        | 1-2           | 1           | Planned for completion in second reporting cycle   |                 |
|  |                |               | 2           | <b>Complete</b><br>Distribution methods for each target audience are identified in Attachment A3, Educational Campaign Plan, individual campaign plans for each target audience are also available in Attachments A3.1 through A3.4.   | Jun-11          |
|  |                |               | 3           | <b>Complete</b><br>The distribution methods for each targeted audience are outlined in the Educational Campaign Plans, Attachment A3.  | Mar-12          |
| 3) Conduct trainings for pollution prevention/good housekeeping practices  | 4.2.6.1.7      | 2-5           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                |               | 2           | <b>On-Going</b><br>Practices have been incorporated into the Land Disturbance Program and will be incorporated with into a new target audience or area each year.  | On-Going        |
|  |                |               | 3           | <b>On-Going</b><br>See Attachment A3, Educational Campaign Plans and 2012 Educational Campaign Report and 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2,, Attachment A4 for a list of trainings that were conducted during this reporting year. | On-Going        |
| 4) Evaluate impact of trainings for pollution prevention/good housekeeping practices                                       | 4.2.6.1.7      | 2-5           | 1           | Planned to begin in second reporting cycle   |                 |
|  |                |               | 2           | <b>On-Going</b><br>Postponed due to staff shortages and military deployments.  | On-Going        |
|  |                |               | 3           | <b>Complete</b><br>The 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2, Attachment A4, outlines the evaluation of public outreach and involvement activities that have incorporated pollution prevention training.                                | Complete        |

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| Measurable Goals  | Permit Section | Year Required | Report Year | Measurable Goal Status  | Completion Date |
|---|----------------|---------------|-------------|---|-----------------|
| 5) Evaluate and revise educational materials as necessary to ensure target audiences are informed and complying with pollution prevention/good housekeeping practices | 4.2.6.1.7      | 2-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                |               | 2           | <b>On-Going</b><br>See Attachment A2, Outreach Activities and Distributed Materials Log.  | On-Going        |
|   |                |               | 3           | <b>Complete</b><br>Educational Materials for each MCM and targeted audience has been reviewed this reporting year. See Attachment A1, Inventory List of Publications.   | May-12          |
| <b>BMP 6C - Evaluate the Success of Pollution Prevention/Good Housekeeping (SWMP 7.6.3, page 42)</b>  |                |               |             |   |                 |
| 1) Adherence to the Municipal Operations and Maintenance Program established and implemented on the installation, identified in BMP #6A                               | 4.2.6.1.8      | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                |               | 2           | <b>Complete</b><br>The six measurable goals in BMP 6A are fully implemented and adhered to.   | Jun-11          |
|   |                |               | 3           | <b>Complete</b><br>The six measurable goals in BMP 6A are fully implemented and adhered to.   | Mar-12          |
| 2) Trainings held and number of attendees for the Pollution Prevention/Good Housekeeping Training Program, identified in BMP #6B                                      | 4.2.6.1.8      | 1-5           | 1           | Planned to begin in second reporting cycle  |                 |
|   |                |               | 2           | <b>Complete</b><br>See Attachment A2, Outreach Activities and Distributed Materials Log.  | Jun-11          |
|   |                |               | 3           | <b>Complete</b><br>Attachment A4, 2012 Educational Campaign Report and Effectiveness Evaluation of MCM 1 and 2 lists all activities and training conducted during this reporting year for each targeted audience. | Mar-12          |
| Green shading indicates goal has been either completed or implemented   |                |               |             |   |                 |
| Orange shading indicates goal that was scheduled for completion this reporting cycle but not completed  |                |               |             |   |                 |
| No shading indicates goals that will be implemented during future reporting cycles  |                |               |             |   |                 |