

**Municipality/Organization:** Town of Raynham, MA

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**EPA NPDES Permit Number:** MAR 041151

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**MassDEP Transmittal Number:**

W-XZ 809 45

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**Annual Report Number** Year 15

**& Reporting Period:**

April 1, 2017 – March 31, 2018

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**NPDES PII Small MS4 General Permit  
Annual Report  
(Due: May 1, 2018)**

**Part I. General Information**

**Contact Person:** David Flaherty

**Title:** Interim Town Administrator

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**Email:** [dflaherty@town.raynham.ma.us](mailto:dflaherty@town.raynham.ma.us)

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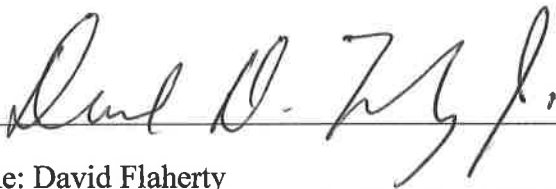
**Mailing Address:** 558 South Main Street, Raynham, MA 02767

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**Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Signature:**



**Printed Name:** David Flaherty

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**Title:** Interim Town Administrator

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**Date:** 6/7/2018

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## Part II. Self-Assessment

The Town of Raynham, MA has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions except for the following provisions:

Section 1.1 Public Outreach –No classroom presentations made (no conservation agent to conduct them at this time)

Section 2.2 Illicit Discharge Detection & Elimination By-law has not been accepted as a Town by-law as of this date. However, the Town has continued to enforce health regulations preventing illegal discharges to the Town's stormwater system. Approximately 90% of the town's residents are already sewered or have town sewer available.

## Part III. Summary of Minimum Control Measures

### STORMWATER REPORT

#### Part III Summary of Minimum Control Measures

##### 1. Public Education and Outreach

| <u>BMP ID#</u> | <u>BMP Description</u>                     | <u>Responsible Dept./Person</u>               | <u>Measurable Goal(s)</u>                      | <u>Progress on Goal(s)<br/>Permit Year 15</u> |
|----------------|--------------------------------------------|-----------------------------------------------|------------------------------------------------|-----------------------------------------------|
| 1.1            | Introduce topic to students as appropriate | Public Education task force                   | Classroom presentations                        | No presentations made this year.              |
| 1.2            | Design & Distribute Brochure               | Town Administrator                            | Raise public awareness pollution of stormwater | Completed in year 2                           |
| 1.3            | Stencil storm drains                       | Highway Department/<br>Highway Superintendent | Identify MS4 for public                        | Completed in year 4                           |

|      |                                            |                                               |                                        |                                |
|------|--------------------------------------------|-----------------------------------------------|----------------------------------------|--------------------------------|
| 1.4  | Create Public Education Task Force         | Raynham Board of Selectmen/Town Administrator | Board of Selectmen appoints Task Force | Completed in year 1            |
| 1.5. | Create awareness with education incentives | North & Center Water District Supts.          | Create scholarship fund                | Small scholarship fund created |

## **2. Public Involvement and Participation**

| <u>BMP ID#</u> | <u>BMP Description</u>                                | <u>Responsible Dept./Person</u>                | <u>Measurable Goal(s)</u>                                 | <u>Progress on Goal(s) Permit Year 15</u>                                   |
|----------------|-------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------|
| 2.1            | Form Technical Comm.                                  | Town Administrator/<br>Board of Selectmen      | Board of Selectmen vote to form committee                 | Completed in year 1                                                         |
| 2.2            | Tech.Comm.drafts by-law                               | Technical Committee                            | Illicit Discharge and E & S bylaws presented to Town      | Draft By-Law ready                                                          |
| 2.3            | Use media to educate and motivate residents to comply | Technical Committee employees of town agencies | Positive press coverage of storm water meeting activities | Occasional announcements made at Selectmen/Health and Conservation meetings |
| 2.4            | Solicit residents to report discharges                | Task Force                                     | Residents report                                          | <u>No</u> incidents reported this year                                      |

|     |                                                |                     |                                   |                             |
|-----|------------------------------------------------|---------------------|-----------------------------------|-----------------------------|
| 2.5 | Provide public notice of all meetings/hearings | Technical Committee | Public attends Meeting & Hearings | No meetings held this year. |
|-----|------------------------------------------------|---------------------|-----------------------------------|-----------------------------|

2A Additions

|     |                |              |                                   |                                                                                    |
|-----|----------------|--------------|-----------------------------------|------------------------------------------------------------------------------------|
| 2.6 | HHW Collection | Highway Supt | Hold one Town-wide event annually | Town-wide event held on June 3, 2017 (by Clean Harbors) 152 residents participated |
|-----|----------------|--------------|-----------------------------------|------------------------------------------------------------------------------------|

**3. Illicit Discharge Detection and Elimination**

| <u>BMP ID#</u> | <u>BMP Description</u>                                      | <u>Responsible Dept./Person</u>        | <u>Measurable Goal(s)</u>        | <u>Progress on Goal(s) Permit year 15</u>                                                                                  |
|----------------|-------------------------------------------------------------|----------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 3.1            | Map MS4 Outfalls                                            | Highway & Planning Dept                | Produce Maps of MS4              | Initial mapping completed in Year 7, Updates for pipe connectivity made in Year 15 (field verification & as-built reviews) |
| 3.2            | Dry weather screening during routine catch basin cleaning   | Highway Dept. Superintendent/Employees | Monitor MS4                      | Highway Dept. checked catch basins for dry weather flows (none found)                                                      |
| 3.3            | Inspections during routine detention/retention basin mowing | Highway Supt.                          | Monitor MS4                      | Highway Dept. inspected detention basins for dry weather flows (none found)                                                |
| 3.4            | Illicit Discharge By Law enforcement.                       | Highway Supt.                          | Violations caught or discouraged | No illegal discharge events                                                                                                |

|     |                                               |                                              |                                           |          |
|-----|-----------------------------------------------|----------------------------------------------|-------------------------------------------|----------|
| 3.5 | Prvd.Insp. & tech. assist.<br>to & ZBA Boards | Highway & Planning<br>Board Dept/Hiway & P.B | Develop & enforce<br>Management practices | On-going |
|-----|-----------------------------------------------|----------------------------------------------|-------------------------------------------|----------|

#### **4. Construction Site Stormwater Runoff Control**

| <u>BMP<br/>IC#</u> | <u>BMP Description</u>                                  | <u>Responsible Dept./Person</u>                         | <u>Measurable Goal(s)</u>                                       | <u>Progress on Goal (s)<br/>Permit Year 15</u>                                                      |
|--------------------|---------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 4.1                | Devlp.by-law for<br>construction along<br>accepted ways | BOS & Hiway Dept.Town<br>Adm& Hiway Supt.               | Required permit & cash<br>bond before excav. along<br>town ways | Completed in Year 3.<br>54 such permits<br>were issued during the<br>year.                          |
| 4.2                | Conduct subdivision<br>review & inspections             | Hiway & Planning<br>Dept/Hiway Supt.&<br>Planning Board | Enforce const. of<br>aprv.plans through<br>subdivision cont.    | Two subdivision reviewed<br>for compliance during<br>construction (Bassett<br>Knoll & Whippoorwill) |
| 4.3                | Develp.P.B.& ZBA to<br>address MS4 issues               | Highway & Planning<br>Dept./Hiway &<br>P.B.Agents       | Provide regulations<br>addressing MS4 issues                    | Completed                                                                                           |
| 4.4                | Enforce by-laws & PB<br>reg.                            | Highway & Planning<br>Hiway Supt & P.B. Regs            | Encourage proper<br>management of MS4<br>issues                 | All new subdivisions and<br>sites of greater than 1 acre<br>were inspected for proper<br>MS4        |

|     |                                                             |                                                  |                                                          |                                                                                                                   |
|-----|-------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 4.5 | Conduct routine & impromptu inspections during construction | Highway Dept / Highway Supt. or designated agent | Discourage MS4 violations & encourage best Mgt.Practices | Highway employees conducted scheduled & unscheduled inspec.of all construction sites requiring stormwater control |
|-----|-------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|

### **5. Post-Construction Stormwater Management in New Development and Redevelopment**

| <u>BMP ID#</u> | <u>BMP Description</u>                                   | <u>Responsible Dept/Person</u>                               | <u>Measurable Goals</u>                               | <u>Progress on Goal (s) Permit Year 15</u>                                     |
|----------------|----------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------|
| 5.1            | Monitor,review & assess compliance with MS4 regs.        | Hwy & Planning Board Depts/Hwy Supt & P.B. agents            | Use bond surety to insure compliance with regulations | Fees for maintenance of MS4 in new developments collected-two subdivisions     |
| 5.2            | Periodic assessment of BMP's for MS4                     | Hiway & Planning Board Depts/Hiway Supt. & P.B.agent         | Ongoing evaluation of what is working and what is not | No review this year.                                                           |
| 5.3            | Provide tech support & BMP's to aprop. Boards agencies   | Hiway, P.B & Tech.& Cmt/Hiway Supt. P.B.agents & Cmt member. | Ongoing assessment & use of improved BMP              | Planning Board allows Low Impact Development techniques.                       |
| 5.4            | Required review & Comment B/4 bond reduction (or) return | Planning & Appeals Board Chairman each Board                 | Ensure compliance of BMP's of developing projects     | Town Engineer/Hwy Supt. did final inspection of two projects before acceptance |

## **6. Pollution Prevention and Good Housekeeping in Municipal Operations**

| <u>BMP ID #</u> | <u>BMP Description</u>                                      | <u>Responsible Dept/Person</u>                        | <u>Measurable Goals</u>                               | <u>Progress on Goal(s) Permit Year 15</u>                                                         |
|-----------------|-------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 6.1             | Regular cleaning & inspections of catch basin               | Hiway Dept./ Hiway Supt responsible Dept./Person Name | Regular assessment structure & removal of road soils  | 80% of catch basins cleaned & inspected annually                                                  |
| 6.2             | Regular Street sweeping                                     | Hiway Dept/Hiway Supt.                                | Regular & periodic removal of road soils              | All streets in Town swept at least once. Some major arteries twice. School & town lots also swept |
| 6.3             | Installation of deep sump basins                            | Hiway Dept/ Hiway Supt.                               | Collection of additional road soils from MS 4 systems | No deep sumps added during reporting period                                                       |
| 6.4             | Provide employee regds.train.hazs. mat. clean up & disposal | Hiway Dept/Hiway Supt.                                | Employees are trained in Hazmat                       | Employee maintained Hazmat certification (8 hours)                                                |
| 6.5             | Provide work orders system                                  | Hiway Dept/Hiway Supt & General Foreman               | Provide records of mat. removed & work pref.on MS4    | Work order system functioning well                                                                |

## **Part IV. Summary of Information collected and Analyzed**

The town is now operating with an approximately 92 percent sanitary sewer system. No illegal connections were detected during this reporting period. Further expansion of the sewer system is continuing.

All streets were swept of sand and salt at least once. Some of the Town's major arteries were swept twice.

Highway Department mowed and otherwise maintained all (100%) of the detention/retention basins in Town thanks to a fund established in 1988. Developers pay a \$500 per lot fee into a perpetual maintenance account established for the purpose of maintaining stormwater structures in subdivisions.

80% of catch basins were cleaned during reporting period out of 1800 total catch basins. These were checked for dry weather flows at the time of cleaning. 652.47 tons of material was taken to the Taunton Landfill operated by Waste Management.

All construction sites were inspected for adequate erosion and sediment control.

Annual Household Hazardous Waste Day was held at the Town's recycling and transfer station with Clean Harbors as the vendor. 152 residents brought household hazardous waste to this event in June of 2017.

There were no reports of illegal dumping/disposal into the Town's MS4 system.

30 bonds of \$2,000 each were collected for building lots on accepted roads to ensure adequate protection of the roadway and storm drainage.

#### **Part V. Program Outputs & Accomplishments (OPTIONAL)**

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2014 through March 31, 2015)

##### ***Programmatic***

|                                                               | (Preferred Units) | Response                                               |
|---------------------------------------------------------------|-------------------|--------------------------------------------------------|
| Stormwater management position created/staffed                | (y/n)             | N                                                      |
| Annual program budget/expenditures **                         | (\$)              | \$40,000 est.                                          |
| Total program expenditures since beginning of permit coverage | (\$)              | \$700,000 est.                                         |
| Funding mechanism(s) (General Fund, Enterprise, Utility, etc) |                   | Stormwater<br>Stabilization<br>Account/General<br>Fund |
|                                                               |                   |                                                        |



## Education, Involvement, and Training

|                                                                            |               |            |
|----------------------------------------------------------------------------|---------------|------------|
| Estimated number of property owners reached by education program(s)        | (# or %)      | 30%        |
| Stormwater management committee established                                | (y/n)         | Y          |
| Stream teams established or supported                                      | (# or y/n)    | N          |
| Shoreline clean-up participation or quantity of shoreline miles cleaned ** | (y/n or mi.)  |            |
| Shoreline cleaned since beginning of permit coverage                       | (mi.)         |            |
| Household Hazardous Waste Collection Days                                  |               |            |
| ▪ days sponsored **                                                        | (#)           | 1 Annually |
| ▪ community participation **                                               | (# or %)      | 152        |
| ▪ material collected **                                                    | (tons or gal) | Var.       |
| School curricula implemented                                               | (y/n)         |            |
|                                                                            |               |            |

## Legal/Regulatory

|                                                    | <i>In Place</i><br>Prior to | <i>Reviewing</i><br>Existing | <i>Draft</i><br>in |                |   |
|----------------------------------------------------|-----------------------------|------------------------------|--------------------|----------------|---|
|                                                    | <b>Phase II</b>             | <b>Authorities Drafted</b>   | <b>Review</b>      | <b>Adopted</b> |   |
| Regulatory Mechanism Status (indicate with "X")    |                             |                              |                    |                |   |
| ▪ Illicit Discharge Detection & Elimination        |                             |                              |                    | X              |   |
| ▪ Erosion & Sediment Control                       |                             |                              |                    |                | X |
| ▪ Post-Development Stormwater Management           |                             |                              |                    |                | X |
| Accompanying Regulation Status (indicate with "X") |                             |                              |                    |                |   |
| ▪ Illicit Discharge Detection & Elimination        |                             |                              |                    |                |   |
| ▪ Erosion & Sediment Control                       |                             |                              |                    |                | X |
| ▪ Post-Development Stormwater Management           |                             |                              |                    |                | X |

## Mapping and Illicit Discharges

|                                                                    | (Preferred Units)       | Response |
|--------------------------------------------------------------------|-------------------------|----------|
| Outfall mapping complete                                           | (%)                     | 100%     |
| Estimated or actual number of outfalls                             | (#)                     | 175      |
| System-Wide mapping complete (complete storm sewer infrastructure) | (%)                     |          |
| Mapping method(s)                                                  |                         |          |
| ▪ Paper/Mylar                                                      | (%)                     |          |
| ▪ CADD                                                             | (%)                     |          |
| ▪ GIS                                                              | (%)                     | 100%     |
| Outfalls inspected/screened **                                     | (# or %)                | 20%      |
| Outfalls inspected/screened (Since beginning of permit coverage)   | (# or %)                | 100%     |
| Illicit discharges identified **                                   | (#)                     | 0        |
| Illicit discharges identified (Since beginning of permit coverage) | (#)                     | 3        |
| Illicit connections removed **                                     | (# ); and<br>(est. gpd) | 0        |
| Illicit connections removed (Since beginning of permit coverage)   | (#); and<br>(est. gpd)  | 3        |
| % of population on sewer                                           | (%)                     | 92%      |
| % of population on septic systems                                  | (%)                     | 11%      |

## Construction

|                                                                                                      | (Preferred Units) | Response      |
|------------------------------------------------------------------------------------------------------|-------------------|---------------|
| Number of construction starts (>1-acre) **                                                           | (#)               | 12            |
| Estimated percentage of construction starts adequately regulated for erosion and sediment control ** | (%)               | 100%          |
| Site inspections completed **                                                                        | (# or %)          | 4 hwy/37 bldg |
| Tickets/Stop work orders issued **                                                                   | (# or %)          | 0             |
| Fines collected **                                                                                   | (# and \$)        | 0             |
| Complaints/concerns received from public **                                                          | (#)               | 0             |
|                                                                                                      |                   |               |
|                                                                                                      |                   |               |

## Post-Development Stormwater Management

|                                                                                           |     |      |
|-------------------------------------------------------------------------------------------|-----|------|
| Estimated percentage of development/redevelopment projects adequately regulated for post- | (%) | 100% |
|-------------------------------------------------------------------------------------------|-----|------|

|                                                                             |          |   |
|-----------------------------------------------------------------------------|----------|---|
| construction stormwater control                                             |          |   |
| Site inspections (for proper BMP installation & operation) completed **     | (# or %) | 2 |
| BMP maintenance required through covenants, escrow, deed restrictions, etc. | (y/n)    | Y |
| Low-impact development (LID) practices permitted and encouraged             | (y/n)    | Y |
|                                                                             |          |   |
|                                                                             |          |   |

### ***Operations and Maintenance***

|                                                                                              |                |                 |
|----------------------------------------------------------------------------------------------|----------------|-----------------|
| Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **           | (times/yr)     | Every 2 years   |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) ** | (times/yr)     | 1x/year         |
| Qty of structures cleaned **                                                                 | (#)            | 1500            |
| Qty. of storm drain cleaned **                                                               | (%, LF or mi.) | 10%             |
| Qty. of screenings/debris removed from storm sewer infrastructure **                         | (lbs. or tons) | 652 ton (2 yrs) |
| Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **             | (location)     | Beneficial Use  |

|                                                   |                         |               |
|---------------------------------------------------|-------------------------|---------------|
| <b>Basin Cleaning Costs</b>                       |                         |               |
| • Annual budget/expenditure (labor & equipment)** | (\$)                    | \$20,000 est. |
| • Hourly or per basin contract rate **            | (\$/hr or \$ per basin) | \$20/ea       |
| • Disposal cost**                                 | (\$)                    | <b>\$0</b>    |
| <b>Cleaning Equipment</b>                         |                         |               |
| Clam shell truck(s) owned                         | (#)                     | 1             |
| Vacuum truck(s) owned/leased                      | (#)                     | 0             |
| Vacuum trucks specified in contracts              | (y/n)                   | N             |
| % Structures cleaned with clam shells **          | (%)                     | 99%           |
| % Structures cleaned with vacor **                | (%)                     | 1%            |

|                                                                                         | (Preferred Units)     | Response                                  |
|-----------------------------------------------------------------------------------------|-----------------------|-------------------------------------------|
| Average frequency of street sweeping (non-commercial/non-arterial streets) **           | (times/yr)            | 1                                         |
| Average frequency of street sweeping (commercial/arterial or other critical streets) ** | (times/yr)            | 2                                         |
| Qty. of sand/debris collected by sweeping **                                            | (lbs. or tons)        | 65 tons                                   |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **                | (location)            | Taunton<br>Landfill-<br>Beneficial<br>Use |
| <b>Annual Sweeping Costs</b>                                                            |                       |                                           |
| • Annual budget/expenditure (labor & equipment)**                                       | (\$)                  | \$25,000 est.                             |
| • Hourly or lane mile contract rate **                                                  | (\$/hr. or<br>ln mi.) | n/a                                       |
| • Disposal cost**                                                                       | (\$)                  | \$0                                       |
| <b>Sweeping Equipment</b>                                                               |                       |                                           |
| • Rotary brush street sweepers owned                                                    | (#)                   | 1                                         |
| • Vacuum street sweepers owned/leased                                                   | (#)                   | 0                                         |
| • Vacuum street sweepers specified in contracts                                         | (y/n)                 | n                                         |
| % Roads swept with rotary brush sweepers **                                             | %                     | 100%                                      |
| % Roads swept with vacuum sweepers **                                                   | %                     | 0%                                        |

Reduction (since beginning of permit coverage) in application on public land of:  
 ("N/A" = never used; "100%" = elimination)

|                                                        |             |                 |
|--------------------------------------------------------|-------------|-----------------|
| ▪ Fertilizers                                          | (lbs. or %) | 25%             |
| ▪ Herbicides                                           | (lbs. or %) | 25%             |
| ▪ Pesticides                                           | (lbs. or %) | 25%             |
| Integrated Pest Management (IPM) Practices Implemented | (y/n)       | Signs installed |
|                                                        |             |                 |

|                                                                                                                                                          | (Preferred Units)                                                                         | Response                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------|
| Average Ratio of Anti-/De-Icing products used **<br><br>(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas) | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><br>% CMA<br>% Kac<br>% KCl<br>% Sand | 95<br><br><br><br><br><br>5 |
| Pre-wetting techniques utilized **                                                                                                                       | (y/n or %)                                                                                | Y                           |
| Manual control spreaders used **                                                                                                                         | (y/n or %)                                                                                | Y                           |
| Zero-velocity spreaders used **                                                                                                                          | (y/n or %)                                                                                | N                           |
| Estimated net reduction or increase in typical year salt/chemical application rate                                                                       | (±lbs/ln mi.<br>or %)                                                                     | 20%                         |
| Estimated net reduction or increase in typical year sand application rate **                                                                             | (±lbs/ln mi.<br>or %)                                                                     | 90%                         |
| % of salt/chemical pile(s) covered in storage shed(s)                                                                                                    | (%)                                                                                       | 100%                        |
| Storage shed(s) in design or under construction                                                                                                          | (y/n or #)                                                                                | Y                           |
| 100% of salt/chemical pile(s) covered in storage shed(s) by May 2008                                                                                     | (y/n)                                                                                     | Y                           |
|                                                                                                                                                          |                                                                                           |                             |
|                                                                                                                                                          |                                                                                           |                             |

### Water Supply Protection

|                                                                                                   |          |     |
|---------------------------------------------------------------------------------------------------|----------|-----|
| Storm water outfalls to public water supplies eliminated or relocated                             | # or y/n | n/a |
| Installed or planned treatment BMPs for public drinking water supplies and their protection areas | # or y/n |     |
| Treatment units induce infiltration within 500-feet of a wellhead protection area                 | # or y/n |     |

