

City/Town of Hubbardston

# Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

## A. Facility Information

| Owner Name  |   |  |   |
|---|---|--|---|
| Street Address  |   | Map/Lot #  |   |
| City  | State   | Zip Code   |   |
| Site Information  |   |  |   |
| (Check one) I New Construction Up   | grade 🗌 Repair  |  |   |
| Soil Survey Available?   Yes  No  | If yes:   | Source   | Soil Map Unit   |
| Soil Name   | Soil Limitations  |  |   |
| Soil Parent material<br>Surficial Geological Report Available?  Yes  No                   |   | d/Source Map Unit  |   |
| Description of Geologic Map Unit:Flood Rate Insurance MapWithin a regulator               | y floodway? 🗌 Yes 🗌 N   | lo   |   |
| Within a velocity zone? Yes No  | If yes, Mas   | sGIS Wetland Data Layer:   |   |
| Within a Mapped Wetland Area?       Yes         Current Water Resource Conditions (USGS): | No Month/Day/ Year  | Range: 🗌 Above Normal  | Wetland Type           Wetland Type           Normal         Below Normal   |
| -   | Street Address   City   Site Information   (Check one)   New Construction   Up   Soil Survey Available?   Yes   No   Soil Name   Soil Parent material   Surficial Geological Report Available?   Yes   No   Description of Geologic Map Unit:   Flood Rate Insurance Map   Within a velocity zone?   Yes   No   Within a Mapped Wetland Area?   Yes | Street Address         City       State         Site Information         (Check one)       New Construction       Upgrade       Repair         Soil Survey Available?       Yes       No       If yes:         Soil Name       Soil Limitations         Soil Parent material       Soil Limitations         Surficial Geological Report Available?       Yes       No       If yes:         Pescription of Geologic Map Unit:       Flood Rate Insurance Map       Within a regulatory floodway?       Yes       No         Within a velocity zone?       Yes       No       If yes, Mas | Street Address Map/Lot #   City State   Zip Code     Site Information   (Check one)   New Construction   Upgrade   Repair   Soil Survey Available?   Yes   No   If yes:   Soil Parent material   Surficial Geological Report Available?   Yes   No   If yes:   Year Published/Source   Map Unit   Description of Geologic Map Unit: Flood Rate Insurance Map Within a regulatory floodway? Yes No If yes, MassGIS Wetland Data Layer: |



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## **C. On-Site Review** (*minimum of two holes required at every proposed primary and reserve disposal area*)

| Deep       | Observation              | h Hole Numb       | er:                       |                        |             |          |               |                     |                   |                     |           |              |
|------------|--------------------------|-------------------|---------------------------|------------------------|-------------|----------|---------------|---------------------|-------------------|---------------------|-----------|--------------|
| -          |                          |                   | Hole #                    | Date                   |             | Time     |               | Weather             |                   | Latitude            |           | Longitude:   |
| 1. Land    | Use (e.g., wo            | odland, agricultu | ural field, vacant lot, e | tc.)                   | Vegetation  |          | ;             | Surface Stone       | s (e.g., cobbles, | stones, boulder     | s, etc.)  | Slope (%)    |
|            | Description of Location: |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
| 2 Soil P   | arent Materia            | <u>.</u>          |                           |                        |             |          |               |                     |                   |                     |           |              |
| 2. 0011    |                          |                   |                           |                        | La          | ndform   |               | Posi                | tion on Landscap  | e (SU, SH, BS,      | FS, TS)   |              |
| 3. Distar  | nces from:               | Oper              | n Water Body              | fee                    | et          | D        | rainage W     | ay                  | feet              | Wet                 | lands     | feet         |
|            |                          | F                 | Property Line             | fee                    | et          | Drinking | g Water W     | ell                 | feet              | (                   | Other     | feet         |
| 4. Unsuita | ble Materials            | s Present:        | ] Yes 🗌 No 🛛              | If Yes: [              | Disturbed S | Soil 🗌 I | Fill Material |                     | Neathered/Fra     | ctured Rock         | 🗌 Bed     | drock        |
| 5 Grour    | ndwater Obse             | erved: 🗌 Yes      |                           |                        | lf vos      |          | Denth Mars    |                     |                   | Darath O            |           |              |
| 0. Olda    |                          |                   |                           |                        | ii yoo      |          |               | ping from Pit       | -                 | Depth St            | tanding w | ater in Hole |
|            |                          |                   |                           |                        |             | Soil Log |               | ragments            |                   |                     |           |              |
| Depth (in) | Soil Horizon             |                   | Soil Matrix: Color-       | Redoximorphic Features |             | tures    | % by Volume   |                     | Soil Structure    | Soil<br>Consistence |           | Other        |
|            | /Layer                   | (USDA             | Moist (Munsell)           | Depth                  | Color       | Percent  | Gravel        | Cobbles &<br>Stones |                   | (Moist)             |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |
|            |                          |                   |                           |                        |             |          |               |                     |                   |                     |           |              |



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Additional Notes:

#### **C. On-Site Review** (*minimum of two holes required at every proposed primary and reserve disposal area*)

| Deep   | Observation     | n Hole Numl     | ber:                     |               |        |         |          |                         |                     |                     |                            |
|--|-----------------|-----------------|--------------------------|---------------|--------|---------|----------|-------------------------|---------------------|---------------------|----------------------------|
| •  |                 |                 | Hole #                   | Da            | ate    | Time    | W        | 'eather                 | Latitude            |                     | Longitude:                 |
| 1. Land  | Use: (e.g.      | , woodland, agr | icultural field, va      | cant lot, etc | .) Veg | etation |          | Surface Stor            | nes (e.g., cobbles, | stones, boulders,   | etc.) Slope (%)            |
| Desc   | ription of Loca | ation:          |                          |               |        |         |          |                         |                     |                     |                            |
| 2. Soil F  | Parent Materia  | al:             |                          |               |        |         | Landform |                         |                     | Position on Lands   | scape (SU, SH, BS, FS, TS) |
| 3. Distances from: Open Water Body feet  |                 |                 |                          |               |        |         |          | • • • • • •             |                     |                     |                            |
| <ul> <li>Property Linefeet Drinking Water Wellfeet Otherfeet</li> <li>4. Unsuitable Materials Present:YesNo If Yes:Disturbed SoilFill MaterialWeathered/Fractured RockBedrock</li> <li>5. Groundwater Observed:YesNoIf yes:Depth Weeping from PitDepth Standing Water in Hole</li> </ul> |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |
|  |                 |                 |                          |               |        | So      | il Log   |                         |                     |                     |                            |
| Depth (in)   | Soil Horizon    | Soil Texture    | Soil Matrix:             | Redoximorph   |        |         |          | e Fragments<br>y Volume | Soil Structure      | Soil<br>Consistence | Other                      |
| Depth (iii)  | /Layer          | (USDA)          | Color-Moist<br>(Munsell) | Depth         | Color  | Percent | Gravel   | Cobbles &<br>Stones     | Soli Structure      | (Moist)             | Other                      |
|  |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |
|  |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |
|  |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |
|  |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |
|  |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |
|  |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |
|  |                 |                 |                          |               |        |         |          |                         |                     |                     |                            |



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Additional Notes:

## D. Determination of High Groundwater Elevation

| 1.   | Method Used:  |                  | Obs. Hole #     | Obs. H            | Hole #          |                |
|------|---|------------------|-----------------|-------------------|-----------------|----------------|
|      | Depth observed standing water in observation he   | ole              | inches          | inches            |                 |                |
|      | Depth weeping from side of observation hole   |                  | inches          | inches            |                 |                |
|      | Depth to soil redoximorphic features (mottles)  |                  | inches          | inches            |                 |                |
|      | <ul> <li>Depth to adjusted seasonal high groundwater (S<br/>(USGS methodology)</li> </ul> | S <sub>h</sub> ) | inches          |                   | inches          |                |
|      | Index Well Number R   | eading Date      |                 |                   |                 |                |
|      | $S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$   |                  |                 |                   |                 |                |
|      | Obs. Hole/Well# S <sub>c</sub>  | S <sub>r</sub>   | OW <sub>c</sub> | OW <sub>max</sub> | OW <sub>r</sub> | S <sub>h</sub> |
| 2. E | Estimated Depth to High Groundwater: inches   |                  |                 |                   |                 |                |

## E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

| Yes | No |
|-----|----|
|     |    |

| b. If yes, at what depth was it observed (exclude A and O Horizons)? | Upper boundary: | inches | Lower boundary: | inches |
|--|-----------------|--------|-----------------|--------|
| c. If no, at what depth was impervious material observed?            | Upper boundary: | moneo  | Lower boundary: |        |
|  |                 | inches |                 | inches |



Commonwealth of Massachusetts City/Town of Hubbardston

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### **F.** Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

| Signature of Soil Evaluator                         | Date                       |
|---|----------------------------|
| Typed or Printed Name of Soil Evaluator / License # | Expiration Date of License |
| Name of Approving Authority Witness                 | Approving Authority        |

**Note:** In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with <u>Percolation Test Form 12</u>.

Field Diagrams: Use this area for field diagrams:



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