

---

CITY OF LAKE HELEN  
Building Department  
**Stormwater Management Application**

---

*Directions:*

1. *Type or print all information in ink.*
2. *All items must be completed in full in order to avoid delay in processing application.*
3. *Statutory time requirements initiated upon receipt of completed application.*

**OWNER / APPLICANT INFORMATION**

1. Name of Owner/Applicant: \_\_\_\_\_
2. Address: \_\_\_\_\_
3. Phone: (home) \_\_\_\_\_ (business) \_\_\_\_\_ (cell) \_\_\_\_\_
4. Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Owner/Applicant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**PROJECT INFORMATION**

1. Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_
2. Address: \_\_\_\_\_ Parcel#: \_\_\_\_\_
3. Narrative Description of Proposed Project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Location Map (sketch location of project relative to owner/applicant's entire parcel of land)

**REVIEW**

1. Application Complete:     Yes         No
2. Inspection Performed:     Yes         No        Date: \_\_\_\_\_
3. Impact Considerations:     Erosion         Topography         Vegetation  
    Water Quality     Water Quantity     Public Health
4. Action:             Exempt     Denied     Approved for initial construction  
                                  Standard Permit Application Required     Referred to SWMB
5. Date of Action: \_\_\_\_\_
6. Inspected by: \_\_\_\_\_
7. **Final Inspection Approval:** Date: \_\_\_\_\_

Signature: \_\_\_\_\_

TO BE FILLED OUT BY STORMWATER INSPECTOR: (1 copy to file packet – 1 copy to site packet)

CITY OF LAKE HELEN  
STORMWATER RETENTION CALCUTIONS  
SINGLE FAMILY RESIDENTIAL

Building Permit #: \_\_\_\_\_

Applicant: \_\_\_\_\_

Location: \_\_\_\_\_

(1) Impervious Area (Buildings, Porches, Paved Driveways): \_\_\_\_\_ ft<sup>3</sup>

(2) Calculate Required Retention Volume: 1 inch of runoff from impervious surfaces

$$\text{Required Retention Volume} = \text{_____ ft}^3 \times \frac{1}{12} = \text{_____ ft}^3$$

(3) Calculate area necessary to retain this volume (assume 6 inch deep retention area\*)

$$\text{Retention Area} = \frac{\text{_____ ft}^3}{\text{(Required Retention Volume)}} \times \frac{1}{6 \text{ inches}} \times \frac{12 \text{ inches}}{1 \text{ foot}} = \text{_____ ft}^2$$

(4) Adjust for Safety / Slope factor

Multiply by the following slope factor

Slope _____	Slope Factor _____
light slope	1.25
moderate slope	1.5
heavy slope	2.0

$$\text{Required Retention Area} = \frac{\text{_____ ft}^2}{\text{(Retention Area (step 4))}} \times \frac{\text{_____}}{\text{(Slope Factor)}} = \text{_____ ft}^2$$

(5) Size of actual Retention Area approximately equal to Required Retention Area

\* Retention Areas with depths other than 6 inches can be used, but these designs should be reviewed by the City Engineer.