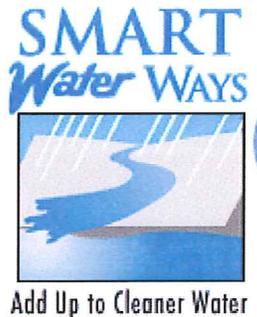


**The Village of Essex Junction  
NPDES  
Phase II Stormwater**

**Notice of Intent and Application Narrative**

**General Permit Number: 3-9014  
NPDES Permit Number: VTR040000**

Submitted: June 1, 2013



**Stormwater Management Plan and  
NPDES GENERAL PERMIT 3-9014 Text  
Village of Essex Junction  
2 Lincoln Street  
Essex Junction, VT 05452**

The Village of Essex Junction, Vermont hereby provides a Notice of Intent to apply for authorization to discharge under the National Pollutant Discharge Elimination System. We request this permit is issued in accordance with the Vermont Water Pollution Control statute, 10 V. S. A. Chapter 47, 1250-1283 specifically including §§ 1259, 1263, and 1264; the Vermont Water Pollution Control Rules, Chapter 13 includes the rule governing general permit in Section 13.12; the federal Clean Water Act, as amended, 33 U.S.C.A. 1251 et seq., including 33 U.S.C.A. 1342(p); and the regulations of the federal Environmental Protection Agency including 40CFR 122.26, 40 CFR 122.28 and 40 C.F.R. 122.30 to 122.37.

**1.1 Permit Coverage.** This application for permit coverage is based on the entire public area and Public Right of Way within the Village of Essex Junction being determined as a small MS4 urbanized area with the following exception(s):

- 1) International Business Machines – a Phase 1 stormwater regulated facility. The Exception to this is a small portion of the Village of Essex Junction stormwater that flows through IBM property to IBM discharge.  
**NPDES 3-1295, SN's:001,002,004,006-019 (as amended)**
- 2) School and other public properties not owned or managed directly by the Village of Essex Junction:  
**4038 INDS, 4119 INDS, 1-1382 (as amended)**
- 3) Champlain Valley Exposition:  
**1-0771, 1-1409, other permits (as amended)**
- 4) Other Privately held, State issued Stormwater Permits that Village maintains an inventory of: **A list is available upon request**

Essex Junction will report compliance activities will be by calendar year with an annual report submitted by April 30<sup>th</sup> reflecting the work performed the previous year.

The Notice of Intent required under section 2.A is based on items that require specific narrative explanation at the time of this application. Items not specifically addressed were taken care of during the last permit cycle and do not need elaboration. Other items in the application may be addressed, as noted, with other reporting milestones and updates required during the permit cycle. Upon submittal of the Notice of Intent and Application for coverage under the Phase II Permit, a complete copy of the Notice of Intent and Application will be made available for public review during normal business hours at the Municipal Offices of the Village of Essex Junction, 2 Lincoln Street, Essex Junction, VT 05452-3685.

## **Storm Water Management Program (SWMP)**

The Village of Essex Junction storm water management program shall be administered by:

Jutras L Jutras  
Water Quality Superintendent  
2 Lincoln Street  
Essex Junction, VT 05452  
Phone (802) 878-6943 or Email [jim@essexjunction.org](mailto:jim@essexjunction.org)

### **4.C.1 Water Quality Controls for Discharges to Impaired Waterbodies**

#### **4.C.1.a Best Management Practices**

The Village of Essex Junction has consistently operated and maintained their stormwater collection infrastructure with necessary repairs, frequent street sweeping and annual catch basin cleaning. The Village has been a leader in asset management maintenance practices which has minimized physical repair frequency required for the system. In compliance with the requirements of the Phase II Permit process, the Village of Essex Junction summarized operations as follows:

**Street Sweeping:** Recurring sweeping of Essex Junction streets to remove silt and sediment:

- A) Multiple sweepings of class 1 and 2 highways:
- B) Spring power sweeping of all Village of Essex Junction sidewalks to remove sand and debris from snow removal operations.
- C) Spring sweeping all public roads in the Village of Essex Junction as conditions require.
- D) Fall sweeping of most streets
- E) Sweeping of publicly owned parking areas

Sweeping activity does not include private streets, IBM property or any non-municipal property, school, state or Federal property or Right of Way. Relevant reporting data is included with the MS4 annual report each April.

**Catch Basins:** Annually, catch basins are inspected and deposited sediment removed from drainage inlet sumps when the functional volume of the sump approaches or exceeds 50% of its rated capacity. Annual inspection determines repair needs. Construction and repairs are by pre-cast or cast concrete with cast in place grade adjustment rings. Infrastructure in need of repair is scheduled for completion during the summer construction season.

Materials collected during catch basin cleanings are disposed in compliance with applicable rules and regulations.

#### **4.C.1.c Consistency with Total Maximum Daily Load (TMDL) Requirements**

The Village of Essex Junction SWMP incorporates BMP's noted in section 4.C.1.b of this application narrative as well as many others. These BMP's are in general conformance as they are presently outlined by the Vermont Agency of Natural Resources for 303d. listed impaired waters. The Village of Essex Junction's plan is consistent as the plan contains provisions to address:

## **Erosion and sediment control at construction sites**

### **Municipal permits for developments disturbing less than one acre:**

- Essex Junctions Land Development Code (as amended) incorporates state small site standards by reference for any project, regardless of size. If other state stormwater standards apply, they take precedent.
- Permit process enhancements will be made in accord with the ANR recommendations contained in the Vermont Stormwater Manual.
- Staff provide guidelines and limitations to applicants for minimization of impervious area cover

### **Better Backroads**

- Erosion control and sediment control is currently a part of our subdivision review process. Required safeguards as well as impervious surface minimization techniques are included in the code. The Village of Essex Junction does not have dirt roads within the public Right of Way.

### **Riparian Buffers**

- Riparian buffers are maintained as part of the development review process. The Village of Essex Junction Land Development code addresses riparian buffers.

### **Impervious Surface Minimization and Site Design**

Additional Modification to the Land Development code will be made to clarify some practices now known as LID or Low Impact Development.

#### **4.C.1.e.1. Flow Restoration Plan**

All items will be presented as part of a comprehensive FRP which is to be developed in accordance with requirements contained in the permit. Any expenditure required for funding associated with implementing the FRP is subject to Trustee review and voter approval.

As per section 4.C.1.e.3 the semi-annual report on status development of FRP will be provided. One of the two required reports will be along with the MS4 annual report each April.

#### **4.C.1.e.4 Low Impact Best Management Practices Assistance Program**

The Village of Essex Junction will address a response to this requirement in the coming two years as required in the permit.

#### **4.C.1.e.5-4.C.1.e.6 Stream Corridors Protection and Mapping**

The Village of Essex Junction has already addressed many of these requirements. Review and modification will commence and continue during the two year allowed by the permit.

#### **4.C.1.e.7.a Flow Monitoring Program**

The Agency of Natural Resources has committed to work with municipalities to coordinate a flow monitoring program. This MS4 is not aware of any further work at the time of this plan development. The Village of Essex Junction will participate in this State coordinated monitoring program when it is set up. Sampling and Essex Junctions funding contribution will commence after July 1, 2014.

## **4.H Minimum Control Measures**

### **4.H.1 Public Education and Outreach on Stormwater Impacts**

The Village of Essex Junction is a participant in the Regional Stormwater Education and Outreach Program (RSEP) <http://www.smartwaterways.org/>. The Village of Essex Junction stormwater page will be periodically updated with permit required reports as well as appropriate local, regional and state information as deemed necessary for compliance [www.essexjunction.org](http://www.essexjunction.org).

### **4.H.2 Public Involvement/Participation**

The Village of Essex Junction participates in the Chittenden County Stream Team (CCST) <http://www.ccstreamteam.org/>.

### **4.H.3 Illicit Discharge Detection and Elimination**

The Public Works department has a comprehensive record and maintenance of storm infrastructure. Staff and citizen reporting will remain the primary method of reporting of illegal dumping of waste materials into storm drainage systems. Residents readily report suspect activity. Staff investigates all events reported.

Periodic screening of outfalls will occur a minimum of once per permit cycle. Methods used to test will be the latest physical and chemical means.

Local business is presently educated about proper waste disposal practices by the Chittenden Solid Waste District (CSWD). The Village of Essex Junction will continue to explore additional education partnerships to reinforce the hazards associated with the illegal and improper disposal of wastes.

During this permit cycle, we plan to develop an outreach brochure for proper winterization and disposal of excess pool water while winterizing swimming pools. Existing map sources and other tools will be used to deliver the outreach brochure to homes with permanent swimming pools.

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

The Village of Essex Junction Land Development Code already regulates construction disturbing less than 1 acre and for project sites disturbing from 1 to 5 acres as required. Essex Junction has incorporated the State's Low Risk Site Handbook for Erosion Prevention and Sediment Control by reference as part of the Land Development Code. Construction monitoring activity is conducted by the Village of Essex Junction as normal procedure. Inspection activity will be reported annually each April.

The Village of Essex Junction insures compliance with stormwater standards during the design review process. For private infrastructure, the development review process will insure long-term maintenance and stipulated permit condition commitment through a Homeowners Owner's Association, utility association or other type of legal entity to provide an enforceable maintenance stipulation.

#### **4.H.5 Post-Construction Stormwater Management in New Development and Re-Development Areas**

Essex Junction developed a Post-Construction Stormwater Runoff from New Development and Redevelopment projects during the last permit cycle. Expired permits will be addressed as required in compliance with the permit schedule.

As part of the Village of Essex Junction design review processes, long-term maintenance of any proposed infrastructure is considered as part of the design review and approval process. Any utilities or infrastructure designed for turn over to the Village of Essex Junction shall meet or exceed Village and State standards in order to be accepted as Village infrastructure and are taken under the MS4 permit compliance. The same design requirements are required for private infrastructure as well.

All Projects constructed within the community are subject to engineers' inspection and periodic staff inspection as part of the existing permit structure. Compliance with permit conditions including stormwater post construction practices is a requirement prior to issuance of a certificate of occupancy and for ongoing permit compliance.

The Village of Essex Junction Land Development Code already contains language that encourages use of low impact design "to the maximum extent practical given the site's soil characteristics, slope and other relevant factors" (Section 513D of LDC). These provisions will be reviewed and improved as deemed necessary in compliance with permit requirements.

#### **4.H.6 Pollution Prevention/Good Housekeeping for Municipal Operations**

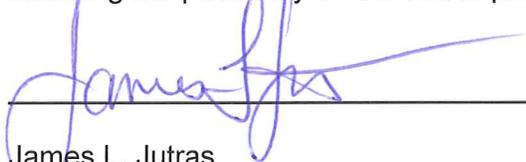
The Village of Essex Junction Department of Public Works presently employs various prescribed BMP's for stormwater pollution control

- Perform one Municipal Compliance Assistance Program during the permit cycle
- Maintain "No Exposure" Certification for the WWTF Multi sector General Permit
- Pollution prevention work required under VT Act 43 sewage spill prevention planning
- Maintain oil/water separator are currently in place for all garage spaces and other areas with floor drains at both Public Works and Wastewater facilities.
- Maintain ESQG (Exempt Small Quantity Generators) status at Public Works and Wastewater.
- Street sweeping and catch basin cleaning in compliance with BMP's/operating standards.
- Proper and authorized disposal of catch basin and street sweeping materials

Public Works Waste ID# VTR 000501619  
Wastewater Waste ID# VTR 000501627

**Plan 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 gathered and evaluated 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 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.

 \_\_\_\_\_ Date 5-30-2013

James L. Jutras  
Water Quality Superintendent  
Village of Essex Junction

 \_\_\_\_\_ Date 5/30/13

Lauren Morriseau  
Interim Village Manager (Authorized Agent)  
Village of Essex Junction

Attachment A: Selected Minimum Control Measures

BMP ID	Public Education	Responsible Dept. or Person	Measurable Goal
1-1	Maintain SW website	James Jutras	update with most current annual and semi-annual reports as completed ( <a href="http://www.essexjunction.org">www.essexjunction.org</a> )
1-2,3,4	Participate in RSEP, other regional SW ed. strategy, or submit individual plan	James Jutras	Participate in RSEP
1-5a	Develop or acquire informational brochures	RSEP	Participate in RSEP
1-5b	Distribute SW brochures 2x in first year and 1x in subsequent years	RSEP	Participate in RSEP
1-5c	Seek local news media to run at least 2 news or feature stories per year	RSEP	Participate in RSEP
1-5d	For municipalities: Develop school materials and teacher trainings	RSEP	Participate in RSEP
1-5e	For non-traditional: Develop public education campaign for facility users	N/A	N/A

Attachment A: Selected Minimum Control Measures

BMP ID	Public Participation	Responsible Dept. or Person	Measurable Goal
2-9	Participate in the Stream Team or other regional SW participation program, or submit individual plan	James Jutras	Participate in Chittenden County Stream Team (CCST)
<b>Implement a program that includes at least 3 of the following:</b>			
2-1	Form a citizen SW advisory panel	N/A	N/A
2-2	Establish or support a WQ monitoring program involving citizen volunteers	CCST	Participate in CCST
2-3	Institute an on-going public workshop series on SW awareness	CCST	Participate in CCST
2-4	Institute a continuing storm drain stenciling project	James Jutras	Will mark where appropriate and reasonably maintain remaining permanent markers
2-5	Sponsor periodic community stream corridor clean-up days	CCST	Participate in CCST
2-6	Establish and support a citizen "stormwater watch" group	N/A	N/A
2-7	Create or support an "adopt-a-stream" program	CCST	Participate in CCST
2-8	Undertake a program similar in content and scope to the above with permission of Secretary	N/A	N/A
<b>Note: The items noted may or may not be part of CCST Annual Work plan as determined by consensus of the group</b>			

Attachment A: Selected Minimum Control Measures

BMP ID	Illicit Discharge Detection & Elimination	Responsible Dept. or Person	Measurable Goal
3-1	Develop and enforce a program to detect and eliminate illicit discharges	James Jutras	Existing routine infrastructure inspections, staff/resident reporting and follow up. To be reviewed and adjusted as warranted during the permit cycle.
3-2	Develop and maintain storm sewer GIS or AutoCAD map	James Jutras	ongoing update/review map annually for changes or additions
3-3	Develop and enforce illicit discharge ordinance	James Jutras	Compliant: see Land Development Code. Will review and modify as warranted during permit cycle
3-4	Develop and implement illicit discharge detection plan, focus on impaired waters and random dumping	James Jutras	Periodic sampling of outfalls at a minimum of once/permit cycle with detailed follow up as warranted
3-5	Inform public of illicit discharge and disposal hazards	James Jutras	Make CSWD pamphlets available at Village Office
3-6	Address specific categories of illicit discharges, if necessary	N/A	Develop a swimming pool winterization pamphlet during permit cycle. Distribute to pool owners.
3-7	Prepare annual report of monitoring and corrective actions taken	James Jutras	Report the number of illicit discharges detected and eliminated in April annual report

Attachment A: Selected Minimum Control Measures

BMP ID	Construction Site Runoff Control	Responsible Dept. or Person	Measurable Goal
4-1	Develop and implement procedures to ensure MS4 construction activities are properly permitted	Planning and Zoning Dept.	In compliance: Random site inspections occur by Village Staff. Some general inspections are performed after storm events.
4-2	Review existing MS4 regulations for effectiveness in managing construction-related E&S and consistency with state construction permit	Planning and Zoning Dept.	In compliance: See Land Development Code
4-2a	Adopt E&S requirements that are at least as stringent as state requirements	Planning and Zoning Dept.	In compliance: See Land Development Code
4-3	Develop and implement an erosion control ordinance that regulates development not subject to state permitting	Planning and Zoning Dept.	In compliance: See Land Development Code

Attachment A: Selected Minimum Control Measures

BMP ID	Post Construction Runoff Control	Responsible Dept. or Person	Measurable Goal
5-1	Review existing MS4 regulations for effectiveness in managing stormwater runoff and consistency with state operational permit		In Compliance: See Land Development Code
5-1a	Assess changes to regulations to support LID	James Jutras	In Compliance: See Land Development Code
5-1b	Assess changes to regulations to minimize impervious surface through street & parking lot design	James Jutras	In Compliance: See Land Development Code
5-1c	Adopt requirements that are at least as stringent as state requirements	James Jutras	Some inspection triggered by weather events: In Compliance see Land Development Code
For development and redevelopment that disturbs ≥ 1 acre but is not subject to state permitting:			
5-2	Develop and implement procedures to identify the development	James Jutras	In Compliance: See Land Development Code. VT Small Site ConstructionStandards are incorporated by reference for any construction project.
5-3	Develop and implement an ordinance that regulates the development	James Jutras	Standards are incorporated by reference for any construction project. In Compliance see Land Development Code and VT Small Site Construction
5-4	Develop and implement inspection procedures for the development	James Jutras	In Compliance: See Land Development Code. VT Small Site ConstructionStandards are incorporated by reference for any construction project.
5-5	Develop and implement procedures to ensure MS4 development activities are properly permitted	James Jutras	In Compliance: See Land Development Code. VT Small Site ConstructionStandards are incorporated by reference for any construction project.

Attachment A: Selected Minimum Control Measures

BMP ID	Pollution Prevention & Good Housekeeping	Responsible Dept. or Person	Measurable Goal
6-1	Describe operation and maintenance program for reducing pollutant runoff from MS4 operations, including, at a minimum:	James Jutras	In Compliance: see NOI and SWMP
6-1a	New construction and land disturbance	James Jutras	Incorporated into design review if not directly regulated by VT. VT Small Site Stds apply. Perform periodic site inspections for erosion control measure compliance.
6-1b	Maintenance of fleet and buildings, all municipal garages, parks, open space, construction and maintenance practices for gravel back roads, snow disposal and stormwater systems	Public Works	In compliance
6-1c	Training, maintenance schedules, and inspection procedures for long term structural controls		Occurs annually Vis RSEP program and others
6-1d	For municipal facilities where fertilizers are applied, prohibit the use of fertilizers containing phosphorus (unless warranted by a soil test)	Village does not use fertilizer	In Compliance as the Village does not use fertilizer on public turf grass
6-2	For Municipal garages, an MS4 may participate in ANR's Municipal Compliance Assistance Program	Public Works	Participation and follow up compliance performed a minimum of one time during permit cycle.
6-3	Provide a list of all industrial facilities that the MS4 owns or operates that are subject to the MSGP	James Jutras	In compliance see NOI; 1) International Business Machines , 2) School and other public properties not owned or managed directly by the Village of Essex Junction, 3) Champlain Valley Exposition. Other permit category lists available on request.

**SECTION 513: APPROVAL OF ACTIVITIES INVOLVING THE CONSTRUCTION OF A STORMWATER SYSTEM**

- A. Review Requirement. Activities involving construction of a stormwater system other than the public storm drainage system, or connection to any such system, shall require review in accordance with the procedures of this section.
- B. Review Standards. Activities reviewed under this section shall comply with the standards set forth in this Code.
- C. Application Requirements.
1. Applications for activities involving the construction of a stormwater system must include a stormwater management plan indicating how the performance requirements and operation and maintenance requirements set forth in this Code will be met. The application shall also identify the legal entity to own and maintain the non-municipal portions of any stormwater system proposed.
  2. Compliance with this section of the Land Development Code may be met by agreeing to maintain best management practices for small construction sites as outlined in "The Low Risk Site Handbook for Erosion Prevention and Sediment Control" or "The Erosion Prevention and Sediment Control Field Guide." Both documents are available for download at: [http://www.anr.state.vt.us/dec/waterq/stormwater/htm/sw\\_cgp.htm](http://www.anr.state.vt.us/dec/waterq/stormwater/htm/sw_cgp.htm) The complexity and details of the plan submitted may vary depending on the extent of the project, the site development proximity to water courses, the size of the project, etc.
  3. Projects requiring a State stormwater permit may submit a copy of the issued State permit with supporting documentation as evidence of compliance with the requirement for a Village of Essex Junction stormwater management plan.
- D. Design Practices. If Low Impact Design Practices are not incorporated into the design, the applicant shall provide justification to the Public Works Superintendent or Water Quality Superintendent or their designee. Applicants shall demonstrate why the use of LID approaches to site runoff is not possible. This must be demonstrated in order to receive permission to connect to the Village stormwater system.

**Low Impact development strategies** (LID include a set of practices when incorporated into the early stages of design, reduce site runoff and related pollutants. On-site LID strategies include best management practices improvements such as rain gardens, buffer strips, filter strips, grass swales, rain barrels, permeable pavement systems, cisterns, etc. LID design practices are encouraged to the maximum extent practical given the site's soil characteristics, slope, and other relevant factors. Such factors shall include, but are not limited to:

2. Minimizing impervious surfaces, preserving open space and their natural drainage systems and preventing unnecessary soil compaction;
3. Directing rooftop runoff to a pervious area where water can infiltrate into the soil of flow overland with sufficient time and reduced velocity, thus allowing for filtering;
4. Restoring and enhancing natural areas such as stream buffers, wetlands and forests, steep slopes, soil permeability and natural drainage systems.
5. Integration of several LID Best Management Practices such as minimizing soil and vegetation disturbances, installing rain gardens, diverting roof downspouts from hard surfaces to allow for infiltration, installing grass swales, etc.

E. Review Procedures. Staff shall review all applications for completeness within three (3) days of receipt. The Public Works Superintendent or Water Quality Superintendent or their designee shall act on all applications within seven (7) days.

F. Appeals. Any interested party may appeal a decision regarding construction of a stormwater system plan as specified in Chapter 117 of Title 24.

G. Properties greater than one (1) acre will require a state stormwater permit in accordance with the Agency of Natural Resources Rules, as covered by permit 3-9020 Construction General Permit.

H. Expiration of Approvals. Approvals shall expire one (1) year from the date permits are issued, if not implemented

#### **SECTION 514: APPROVAL OF ACTIVITIES INVOLVING THE DISTURBANCE OF LESS THAN ONE (1) ACRE OF LAND**

A. Review Requirement. Activities involving clearing, grading, construction or land development/disturbance of less than one acre of land (1) acre shall require review in accordance with the procedures of this section.

B. Review Standards. Activities reviewed under this section shall comply with the standards set forth in Section 713 of this Code. General requirements may be waived by the Public Works Superintendent or Water Quality Superintendent or their designee if the applicant conforms to the State of Vermont Best Site Management practices as outlined in: "The Low Risk Site Handbook for Erosion Prevention and Sediment Control" (as amended) or in the "Vermont Erosion Prevention and Sediment Control Field Guide" (as amended). The state guidelines are available at [http://www.vtwaterquality.org/stormwater/htm/sw\\_cgp.htm](http://www.vtwaterquality.org/stormwater/htm/sw_cgp.htm)

C. Application Requirements.

1. Activities involving clearing, grading, construction or land development of land less than 1 acre must include an erosion and sediment control plan indicating compliance with the "Low Risk Site Handbook for Erosion Prevention and Sediment Control"

2. Additional erosion control stipulations may be required depending on the specific site conditions, such as the extent of disturbed land, proximity of water, percent slope and soil types.

D. Review Procedures. Staff shall review all applications for completeness within three (3) days of receipt. The Public Works Superintendent or Water Quality Superintendent shall act on all applications within seven (7) days.

E. Appeals. Any interested party may appeal a decision regarding an erosion and sediment control plan as specified in Chapter 117 of Title 24.

F. Expiration of Approvals. Approvals shall expire one (1) year from the date permits are issued, if not implemented.

**SECTION 515: APPROVAL OF ACTIVITIES INVOLVING THE DISTURBANCE OF ONE (1) ACRE OR MORE OR MORE THAN ONE (1) ACRE OF IMPERVIOUS SURFACE**

- A. Review Requirement. Activities involving clearing, grading, construction or land development of one (1) acre or more of land and creating less than one acre of impervious surfaces shall require review in accordance with the procedures of the State of Vermont Construction General Permit 3-9020 (2006) 3-9015 or other applicable state permits governing erosion and stormwater control of large construction sites. Evidence of compliance with this provision of Vermont State requirements must be provided in order to receive local approval to proceed. Projects with more than one acre of impervious surface shall also conform with the general standards.
- B. Review Standards. Based on State design criteria.
- C. Application Requirements. Application is made to the Agency of Natural Resources Water Quality Division.
- D. Review Procedures. The Village of Essex Junction reserves the right to require additional conditions above and beyond those in the state issue permit for due cause. The Village reserves this right in order to address specific operational concerns related to the site and its impact on abutters including the municipal right of way and the municipal infrastructure.
- E. Appeals. Any interested party may appeal a decision regarding an erosion and sediment control plan as specified in Chapter 117 of Title 24.
- F. Expiration of Approvals. Approvals shall expire as per the Land Development Code, concurrent with the permits issued by the State of Vermont depending on the phasing and size of the project.

**SECTION 516: APPROVAL OF ACTIVITIES INVOLVING DEVELOPMENT WITHIN 200 FEET OF A WATERWAY, FLOODPLAIN OR WETLAND**

- A. Review Requirement. Activities involving development within 200 feet of a waterway, floodplain or wetland shall require review in accordance with the procedures of this section. The property shall maintain a 15 foot or more undisturbed buffer to adjacent streams. The buffer may be required to be extended based on flood plain profile, slope of the land or other conditions where further setback is warranted for protection of the stream. A set back of 50 feet above high water mark of the floodplain will be considered for impact of stream meandering streambank crossing, flooding or other natural stream processes that may have an impact on developed land.
- B. Review Standards. Activities reviewed under this section shall comply with the standards set forth in this Code.
- C. Application Requirements. Applications for development of any use, structure, excavation, filling clearing or grading activity located within 200 feet of a waterway, floodplain or wetland shall indicate the distance from the proposed activity to the waterway, floodplain or wetland and the percent slope of the proposed site.

D. Review Procedures. Staff shall review all applications for completeness within three (3) days of receipt. The Public Works Superintendent or Water Quality Superintendent shall act on all applications within seven (7) days.

E. Appeals: Any interested party may appeal a decision regarding a zoning district as specified in Chapter 117 of Title 24.

F. Expiration of Approvals. Approvals shall expire one (1) year from the date permits are issued, if not implemented.

G. Conditional Use Review. Shall be considered if it is determined that there is no potential adverse impact to the waters of the same.

H. Riparian Buffer Landscaping Requirements. It is the objective of these standards to promote the establishment and protection of heavily vegetated areas of native vegetation and trees along waterways in order to reduce the impact of stormwater runoff, prevent soil erosion, protect wildlife and fish habitat and maintain water quality.

Any application for development approval under this Code shall provide that all lands within a required riparian buffer are left in an undisturbed, naturally vegetated condition. These standards shall apply to all zoning districts. The following activities are not permitted within Riparian Buffer areas:

1. The creation of new lawn areas.
2. The clearing of trees that are not dead, heavily damaged by ice storms or other natural events, or diseased.
3. Property owners already encroaching on a riparian buffer shall be encouraged to return mowed areas to their naturally vegetated state.

The following conditions will apply to any application for development approval under this Code:

1. Prior to issuing a zoning permit, the Commission may require on-site restoration of degraded riparian habitats through supplemental planting and landscaping with appropriate species and by designating no mow zones.
2. Restoration standards for planting and landscaping appropriate for riparian buffers are outlined in the *Vermont Stormwater Management Manual – Volume II, Appendix A2*.
3. Riparian buffers established as part of this section shall be maintained by the developer and all other subsequent property owners or associations within the development. Reference to these established buffers shall be made in the appropriate deeds or common property documents.

The standards for maintenance of the stream buffer zone prohibit the following:

- (a) The creation of new lawn areas within stream buffers is not permitted after the effective date of these regulations.
- (b) Property owners already encroaching on the stream buffer are encouraged to return mowed areas to their naturally vegetated state.
- (c) Any areas within a required stream buffer that are not vegetated or that are disturbed during construction shall be seeded with a naturalized mix of grasses rather than standard lawn grass, and shall not be mowed more than one (1) time per calendar year after establishment.

- (d) Supplemental planting and landscaping with appropriate species of vegetation to restore and enhance the effective filtering function of a stream buffer is encouraged.

Expansion of pre-existing structures within stream buffers: Any building, structure, or land or use thereof, which is made nonconforming by reason of the adoption of this section, may be expanded or reconstructed, subject to the following provisions:

- (a) The structure to be expanded or reconstructed was originally constructed on or before promulgation of this rule.
- (b) The total building footprint area of the expanded or reconstructed structure shall not be more than fifty percent (50%) larger than the footprint of the structure lawfully existing.
- (c) The non-conforming use shall not be changed to another non-conforming use.
- (d) A non-conforming use that is changed to a conforming use, discontinued for six (6) months, or abandoned shall not be resumed.
- (e) Enlargement, repair and reconstruction of pre-existing structures within stream buffers shall be permitted if it is determined that the development activity will not decrease the existing structure setback from the water body or increase the encroachment within the stream buffer.

New uses and encroachments within stream buffers: The encroachment of new land development activities into the Village's stream buffers is discouraged. The Zoning Board of Adjustment may authorize the following as uses within stream buffers subject to the standards and conditions enumerated for each use:

- (a) Agriculture, horticulture and forestry including the keeping of livestock, provided that any building or structure appurtenant to such uses is located outside the stream buffer.
- (b) Clearing of vegetation and filling or excavating of earth materials, only to the extent directly necessitated for the construction or safe operation of a permitted or conditional use on the same property and where the Planning Commission finds that there is no practicable alternative to the clearing, filling or excavating within the stream buffer. This section is not meant to exclude any streambank alteration permitting requirements of the State of Vermont.
- (c) Encroachments necessary to rectify a natural catastrophe for the protection of the public health, safety and welfare.
- (d) Encroachments necessary for providing for or improving public facilities.
- (e) Public recreation paths located at least fifteen (15) feet above the ordinary high water mark or measured from the top of bank, whichever is greater.
- (f) Stormwater treatment facilities meeting the stormwater treatment practices and sizing criteria set forth in the *Vermont Stormwater Management Manuals Volumes I and II* as most recently amended. Evidence of an approved permit from the Vermont Agency of Natural Resources for coverage under the applicable permitting requirements shall be required to meet this criterion for encroachment into a stream buffer.
- (g) Roadways or access drives for purposes of crossing a stream buffer area to gain access to land on the opposite side of the buffer, or for purposes of providing safe access to an approved use, in cases where there is no feasible alternative for providing safe access and the roadway or access drive is located at least fifteen (15) feet above the ordinary high water mark or measured from the top of bank, whichever is greater.
- (h) Utility lines, including power, telephone, cable, sewer and water, to the extent necessary to cross or encroach into the stream buffer where there is no feasible alternative.

for providing or extending utility services.

(i) Outdoor recreation provided any building or structure (including parking and driveways) appurtenant to such use is located outside the stream buffer, and which does not involve the use of mowed fields within the stream buffer.

(j) Research and educational activities provided any building or structure (including parking and driveways) appurtenant to such use is located outside the stream buffer.

1. The home occupation shall be conducted entirely within the dwelling unit by residents of the dwelling.
2. No employees other than residents of the dwelling are permissible.
3. The area utilized for the home occupation shall not exceed twenty (20) percent of the floor area of the residence, including attached garages.
4. Merchandise offered for sale shall be clearly incidental to the home occupation, provided, however, that orders may be taken for later delivery off premises.
5. Delivery of products for a home business shall occur no more frequently than once daily. Vehicles not ordinarily utilized for residential delivery shall be prohibited.
6. No toxic, explosive, flammable, combustible, corrosive, etiologic, radioactive or other hazardous materials shall be used or stored on the premises.
7. No mechanical equipment other than that ordinarily utilized for household or hobby purposes shall be permitted.
8. No activity shall be conducted on the premises which would interfere with radio or television transmission, nor shall there be any offensive noise, smoke, dust or heat noticeable at the property line.
9. The operation of the home occupation shall not cause or encourage vehicular or pedestrian traffic not ordinarily associated with the residential area in which the home occupation is located except under the following conditions:
  - (a) Public access to the home occupation shall be by invitation only and no more than one vehicle not owned by the occupant may be parked on or adjacent to the property for business purposes. Appointments may overlap for a time period not exceeding thirty (30) minutes.
  - (b) Occasional parties or meetings associated with the business shall occur no more frequently than four (4) times monthly. Special arrangements must be made to provide sufficient parking so vehicles in no way impede the safety and flow of traffic within the neighborhood.
10. Advertising associated with the home business shall be by phone number only. On-premise advertising shall be limited to one (1) non-illuminated sign not exceeding one (1) square foot. The legend shall show only the name of the occupant and occupation and be neutral in color.
11. Public access to Home Occupations shall be restricted to the hours of 8:00 am to 9:00 pm.

#### **SECTION 712: OPEN SPACE REGULATIONS.**

Except as specified in this Code, no building, structure or vehicles shall encroach upon any required setback or designated open space area. All required setbacks shall be maintained in grass and shall not be covered with any impermeable surface materials except in Commercial Districts where the Commission may approve specific alternatives.

#### **SECTION 713: STORM WATER MANAGEMENT.**

##### **A. Purpose.**

1. To promote stormwater management practices that maintain pre-development hydrology through site design, site development, building design and landscape design techniques that infiltrate, filter, store, evaporate and detain stormwater close to its source;

2. To promote natural resources, particularly streams, lakes, wetlands, floodplains and other natural aquatic systems on the development site and elsewhere from degradation that could be caused by construction activities and post-construction conditions;
3. To protect other properties from damage that could be caused by stormwater and sediment during construction activities and post-construction on the development site;
4. To reduce the impacts from impervious surfaces such as streets, parking lots, rooftops and other paved surfaces;
5. To protect public safety from flooding, reduce public expenditures in removing sediment from stormwater drainage systems and natural resource areas, and to prevent damage to Village infrastructure caused by inadequate stormwater controls.

B. Intent. The intent of this Section is to allow no increase in stormwater runoff as a result of any land development activity. The Stormwater Management Section of this Code has been adopted in recognition of the following: that clearing and grading during construction activities increases soil erosion, which in turn negatively affects aquatic and terrestrial habitats; that the creation of impervious surfaces associated with land development increase stormwater runoff rates and volumes, flooding, stream channel erosion, and the transport and deposition of sediment and pollutants and decrease groundwater recharge and stream base flow; that the elimination of illicit discharges and the proper design, construction, operation and maintenance of stormwater systems are crucial for protecting the environment, public health and safety; and, that economic loss and stream water quality degradation can result from these adverse impacts.

C. Illicit Discharge Detection and Elimination.

1. Prohibition of illicit discharges  
Non-stormwater discharges into publicly owned storm sewer systems and private stormwater systems within the Village of Essex Junction are prohibited.
2. Prohibition of illicit connections
  - (a) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
  - (b) A person is in violation of this sub-section if the person connects a line conveying sewage, laundry waste or other forms of gray water to the Village MS4 or allows such a connection to continue.
3. Exempt discharges  
The following discharges are exempt from the discharge prohibitions established in this section:
  - \*Water line flushing with De-chlorinated Water
  - \*Landscape irrigation
  - \*Diverted stream flows
  - \* Uncontaminated ground water, either naturally rising or pumped
  - \* Uncontaminated ground water infiltration into stormwater drains
  - \* Discharges from potable water sources
  - \* Uncontaminated foundation drains
  - \* Air conditioning condensate
  - \* Irrigation water
  - \* Springs
  - \* Uncontaminated water from crawl space pumps

- \* Uncontaminated water from footing drains
- \* Lawn watering
- \* Individual residential car washing
- \* Flows from riparian habitats and wetlands
- \* De-chlorinated swimming pool discharges
- \* Street wash water
- \* Discharges or flows from fire fighting activities occurring during emergency situations not involving hazardous materials or oil.
- \* Dye testing is an allowable discharge if approved by the Village Engineer.

Notification of Spills: Property owners or citizens responsible for facility operation and management who know or suspect release of materials which may result in an illegal discharge to the stormwater system must immediately notify proper emergency response agencies. For release of non-hazardous materials, notification shall be to the Village of Essex Junction.

#### 4. Watercourse Protection.

All stormwater generated from land use /land development activity shall be treated prior to discharge to a wetland or local water body, municipal drainage system or abutting property. Treatment methods prescribed shall be in accordance with the Stormwater best management practices as noted in this Land Development Code.

(a) No person shall deposit or cause to be deposited in a watercourse or on the land impacted by runoff to the watercourse any trash, yard debris or any other material that would pollute or significantly alter the natural flow of water through, or can erode into the watercourse.

(b) The owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

(c) On-site drainage improvements and best management practices, as required by this Code, such as rain gardens, buffer strips, filter strips, grass swales, rain barrels, porous pavement appropriate for cold weather conditions and cisterns shall be maintained by the developer and all other subsequent property owners or associations within the development.

(d) No person shall deposit or cause to be deposited in a public right-of-way used for conveyance of stormwater to a watercourse any trash, yard debris or any other material that would pollute or significantly alter the watercourse. This prohibition addresses yard waste or other organic/inorganic material left within the roadway or sidewalk of the Village of Essex Junction.

#### 5. Suspension of MS4 Access.

The Village may, without notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge that presents or may present danger to the environment, health or welfare, or to the MS4. The Village of Essex Junction maintains a right to access properties for the purpose of evaluating private property compliance with the State mandated provisions of this regulation.

### D. Construction Site Stormwater Runoff Control.

1. Applicability. This subsection shall apply to any clearing, grading, construction or land development activity disturbing any property located within the jurisdictional area

of the Code. Agricultural operations shall be regulated by the Agricultural Department best management practices.

2. State Permits.

(a) The Village shall accept a State of Vermont General Permit for construction site runoff as evidence of meeting Village erosion and sediment control permit requirements for those projects that fall under the jurisdiction of the State requirements. General requirements may be waived by the Public Works Superintendent or Water Quality Superintendent or their designee if the applicant conforms to the State of Vermont Best Site Management practices as outlined in: "The Low Risk Site Handbook for Erosion Prevention and Sediment Control" (as amended) or in the "Vermont Erosion Prevention and Sediment Control Field Guide" (as amended) the state guidelines are available at:

<http://www.anr.state.vt.us/dec/waterq/stormwater/htm/swcgp.htm>

(b) For all development reviewed and approved under the zoning permit approval process or site plan process, the Village hereby incorporates by reference the permit application requirements covered under the Vermont General Permit 3-9020 for stormwater runoff from large construction sites to waters within the jurisdictional area of this Code, which are not principally impaired by collected stormwater runoff.

(c) For all development reviewed, the Village hereby incorporates by reference the permit application requirements covered under the Vermont Individual Construction Permit for stormwater runoff from large construction sites to waters within the jurisdictional area of this Code, which are impaired by stormwater runoff. The Village also incorporates by reference any applicable requirements in a TMDL issued for impaired receiving waters located within the jurisdictional area of this Code.

3. Erosion and Sediment Control Performance Standards. All construction sites are expected to maintain erosion control to prevent migration of stormwater or stormwater flow containing sediment to adjacent private property or to the Village Right of Way. Authorized Village employees may enter at reasonable times upon any property to conduct on-site inspections. Such inspections shall take place before, during and after any soil is disturbed. If upon inspection, the site is not in compliance with erosion standards and a TMDL has been issued for the stormwater impaired receiving water located within the jurisdictional area of this Code, the zoning permit will be deemed invalid until appropriate erosion and sediment control practices are implemented.

4. Stormwater Management Performance Standards: Stormwater conveyance systems designed for the infiltration of stormwater, in part or in whole are preferred, providing that underlying soil conditions allow for infiltration without negative impact on adjacent roads, structures, etc.

(a) Site designs shall minimize stormwater runoff and utilize pervious areas for stormwater treatment. Site designs shall accommodate the peak flow rates of stormwater discharge associated with specified design storms, as noted in the most recent version of the *Vermont Stormwater Management Manual Volumes I and II (as most recently amended)*.

(b) Stormwater runoff generated from new development and redevelopment shall be adequately detained and treated prior to discharging into a jurisdictional wetland or local water body.

- (c) Post development annual groundwater recharge rates shall be maintained at the same rate as the annual recharge from pre-development site conditions by promoting infiltration through the use of structural or non-structural methods.
- (d) For new development, structural stormwater treatment practices (STPs) shall be designed to remove 80% of the average annual post development total suspended solids load (TSS) and 40% for total phosphorous, unless a TMDL has been established requiring a more stringent criteria in the receiving water. It is presumed that a STP complies with this performance standard if it is: sized to capture the prescribed water quality volume; designed according to the specific performance criteria outlined in the most recent version of the *Vermont Stormwater Management Manual Volumes I and II (as amended)*; constructed properly, and maintained regularly.
- (e) The post-development peak discharge rate shall not exceed the pre-development peak discharge rate for the 10-year frequency storm event.
- (f) To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the most recent version of the *Vermont Stormwater Management Manual Volumes I and II (as amended)*.
- (g) Stormwater discharges from intensive land uses or activities with higher potential pollutant loadings, known as hotspots, may require the use of specific structural STPs and pollution prevention practices.

**E. Commercial and Industrial Stormwater Discharges.** Any person subject to an industrial multi-sector general permit or other stormwater permit issued by the State or EPA shall comply with all provisions of such permit. The Village may require proof of compliance with said permit prior to allowing the discharge to connect to the MS4. Those facilities regulated under the Multisector General Permit shall notify the Village of their status under this permit. Notification to the Village shall be required for any change in status under the rules of this State permit process.

**F. Operation and Maintenance of Stormwater Systems.**

1. All stormwater systems shall have a written, and approved, enforceable operation and maintenance agreement, duly recorded in the Essex Town land records, to ensure the system functions as designed. The maintenance agreement shall include a schedule for when and how often maintenance will occur and plans for periodic inspections to ensure proper performance of the facility between scheduled cleanouts.
2. Post-construction responsibility: All proposals for development requiring a stormwater system shall include a post-construction responsibility agreement that designates the person(s) or organization(s) responsible for post-construction maintenance. Maintenance responsibility runs with ownership of the land.
3. Stormwater Systems Designed for Turn Over to the Village: Stormwater systems designed for turn over to the Village shall be maintained in accordance with permit requirements by the permittee. All provisions for compliance shall be the responsibility of the permittee until transfer of permit processes is completed.
  - (a) All proposals for stormwater systems to be turned over to the Village for operation and maintenance shall meet or exceed Village and State design standards outlined in the most recent version of the *Vermont Stormwater Management Manual Volumes I and II*.

- (b) Prior to acceptance by the Village, the developer shall ensure that the stormwater system is clean and in good working condition.
  - (c) Only stormwater facilities with valid permits will be considered for acceptance by the Village of Essex Junction. Stormwater system infrastructure will only be accepted by the Village along with other infrastructure accepted for community ownership. No stormwater system will be accepted unless it is deemed in the interest of the Village of Essex Junction.
4. Right-of-Entry. All proposals for development requiring a stormwater system shall include a right-of-entry agreement that provides access for authorized Village employees to enter such properties at reasonable times and in a reasonable manner for the purposes of inspection.
  5. Waivers. The Village of Essex Junction may waive strict compliance of specific provisions of this stormwater ordinance where:
    - (a) The waiver is allowed by federal, state or local statute/regulation
    - (b) The waiver is in the interest of the public
    - (c) The waiver is not inconsistent with the purpose of the land development code

Any waiver must be requested in writing and shall contain an explanation or documentation that supports the waiver requested. The justification presented must demonstrate that strict application of this ordinance does not further the purpose or objective set forth within the ordinance. Any request for extension shall be acted on in seven (7) days with findings provided in writing to the applicant.

G. Maintenance of Permitted Stormwater Systems. Should a property owner fail to maintain stormwater infrastructure in accordance with the terms and conditions of this ordinance, state or other stormwater permit requirements, the Village of Essex Junction shall provide written notice of violation. The Village of Essex Junction may pursue any steps deemed necessary to prevent or minimize damage to the Village storm drainage infrastructure or to the waters of the state.

After written notice of system deficiencies, the property owner/owners representative shall be responsible to carry out necessary maintenance work to correct the noted deficiencies. Correction shall be required within 30 days. Other reasonable time frames may be assessed if mutually agreeable to the Village and the property owner.

When the violation creates a situation of immediate danger to public health or public safety, the Village of Essex Junction may perform any necessary immediate work to stabilize the situation. The Village maintains the right to assess the property owner for any direct repair costs which shall be a lien on the property.

The Water Quality Control Superintendent in conjunction with the Development Department shall administer, implement and enforce this stormwater management code.

#### **SECTION 714: SIGN STANDARDS.**

The provisions of this Section shall apply to all signs except those exempted herein. Signs in the Planned Exposition (PE) District shall require Conceptual and/or Site Plan approval.

A. Temporary Signs: Temporary signs shall conform to the requirements set forth below as