State of Vermont
WATER RESOURCES BOARD

RE: Home Depot, USA, Inc., et al.
Docket No. WQ-00-06

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

This decision pertains to an appeal of a stormwater discharge permit, DEC Permit #1-0460 ("Permit"). The Permit was issued by the Agency of Natural Resources ("ANR") to Home Depot, USA, Inc. ("Home Depot"), Ann Juster, and Homer and Ruth Sweet (collectively, "Permit Applicants"), authorizing the discharge of treated stormwater runoff from the roadways, parking, and roofs associated with the proposed reconstructed and expanded Juster Mall, Route 4, in the Town of Rutland, Vermont, into an unnamed tributary of Tenney Brook ("Project").

As explained below, the Water Resources Board ("Board") affirms the decision of the Secretary of ANR, with modifications, and issues amended DEC Permit #1-0460.

I. BACKGROUND

On May 24, 2000, the Waste Management Division, Department of Environmental Conservation ("DEC"), as the representative of the Secretary of the ANR, issued the Permit to the Permit Applicants.

On June 15, 2000, Friends of Vermont's Way of Life, Inc. ("Friends") appealed the Permit to the Board. Friends' appeal was timely filed pursuant to 10 V.S.A. § 1269 and docketed as WQ-00-06.

On June 23, 2000, counsel for the Permit Applicants filed his notice of appearance in WQ-00-06. On July 17, 2000, counsel for the ANR entered his appearance.

On July 19, 2000, the Board's Chair, David J. Blythe, Esq., convened a prehearing conference to consider the appeal in Docket No. WQ-00-06 and two conditional use determination ("CUD") appeals related to the Project and pending before the Board as Docket Nos. CUD-00-07 and CUD-00-08. The Friends, Permit Applicants, and ANR were all represented at the prehearing conference.

A Prehearing Conference Report and Order ("Prehearing Order") was issued on July 21, 2000, and no objections to the Prehearing Order were raised by the prehearing conference participants by the July 27, 2000 deadline. Accordingly, party status and other determinations contained in the Prehearing Order became final and binding, except as amended by the Board's subsequent orders. The Prehearing Order identified certain preliminary issues and established deadlines for filing motions, legal memoranda, and requests for oral argument.

On August 29, 2000, in response to a Motion to Dismiss filed by the Permit Applicants and Responsive Memoranda filed by the Permit Applicants and ANR, the Board convened oral argument with respect to certain preliminary issues. On September 8, 2000, the Board issued a Memorandum of Decision on Preliminary Issues and Order ("Preliminary Decision and Order") in which the Board ruled, among other things: (1) that the Friends had the requisite standing to appeal the Permit; (2) that the scope of appeal in Docket No. WQ-00-06 would be limited to consideration of only the stormwater runoff from the Project and the infrastructure proposed for its control and treatment and would not take into account possible discharges from a proposed garden center to be operated by Home Depot; and (3) that Docket No. WQ-00-06 would not be consolidated for hearing with Docket No. CUD-00-07.

On September 8, 2000, the Board's Chair issued a Scheduling Order. In accordance with this order, the parties prefiled direct and rebuttal evidence in late September and throughout October. They filed evidentiary objections and responses and proposed findings of fact, conclusions of law and orders in early November.

The Board's Chair convened a second prehearing conference on November 14, 2000, at which time he made certain preliminary evidentiary rulings. The Friends, Permit Applicants, and ANR were all represented at this second prehearing conference. The Chair's preliminary rulings were memorialized in a Second Prehearing Conference Report and Order ("Second Prehearing Order") issued on November 17, 2000.

On November 20, 2000, Friends filed written objections to certain of the Chair's preliminary evidentiary rulings and scheduling determinations. Friends also filed on this date prefiled surrebuttal testimony of witness Kim Kendall. This testimony and attached exhibits were offered by Friends to respond to the prefiled rebuttal testimony of ANR's witness, Thomas Willard, which testimony was admitted by stipulation of the parties.

On November 21, 2000, the Permit Applicants filed a Motion seeking exclusion of Kim Kendall's prefiled surrebuttal testimony and supporting exhibits.

On November 21, 2000, the Board convened a hearing and site visit in this matter. Participating in this proceeding were:

Friends, the Appellant, by David L. Grayck, Esq. of Cheney, Brock & Saudek, P.C.;
Home Depot and other Permit Applicants by James P.W. Goss, Esq. of Reiber, Kenlan, Schwiebert, Hall & Facey, P.C.; and
ANR by Andy Raubvogel, Esq.

At the hearing, the Board heard limited oral argument in response to the Friends' objections of November 20, 2000, and affirmed all of the Chair's preliminary evidentiary rulings with respect to WQ-00-06, thereby excluding certain of Friends' testimony and exhibits. See Second Prehearing Order at 2-4.

The Board also heard argument regarding the location of the point of discharge of the stormwater into state waters and whether this was to a channelized stream within the confines of the present mall or directly to the Class Two wetlands.

Finally, the Board heard argument regarding whether to exclude all or portions of Kim Kendall's prefiled surrebuttal testimony and attachments in Docket No. WQ-00-06 (Exhibit F-17). With respect to the Permit Applicants' objections, the Chair made the following rulings: Q. & A.1, Sustained in part, overruled in part, admit all of A.1; Q. & A. 2, Sustained, admitting only first paragraph of A.2; Q. & A. 3, Sustained, exclude testimony to the extent that it addresses garden center and related impacts; Q. & A. 4, Sustained, exclude testimony because it is repetitious of direct testimony; Q. & A. 5, Sustained, exclude testimony because it is either repetitious of direct testimony or should have been offered as direct testimony rather than in response to Thomas Willard's rebuttal prefiled testimony (Exhibit TW-2); Q. & A. 6, Sustained, Sustained, admit only first sentence; Q. & A. 7., No objection, admit all. The Chair also overruled ANR's objection with respect to Exhibit F-17, Q. & A.1, p.2 , "...both within the area to be relocated and downstream as the water flows into and through the Class II wetland."

The Board conducted a site visit of the Project and placed its observations on the record.

The Board recessed the hearing and held deliberations on December 12, 2000, January 9 and 24, and February 5**,** 2001. On February 5, 2001, the Board declared the record complete and adjourned the hearing. This matter is now ready for decision.

II. ISSUES

The issues in this appeal were initially framed in the Friends' Notice of Appeal at 2 (Jun. 15, 2000) as:

(1) Whether the [Project] Discharge complies with 10 V.S.A. §§ 1263 and 1264, including but not limited to 10 V.S.A. § 1263(a), (c), and (d)(1)-(4); and 10 V.S.A. § 1264(a),(b), and (c).

(2) Whether the [Project] Discharge complies with the [1997] Vermont Water Quality

Standards ("1997 Water Quality Standards"), including, but not limited to, Sections 1-02, 1-03, 1-04, 2-05, and 3-03.

(3) Whether the [Project] Discharge complies with the ANR's [1997] Stormwater Management Procedure[s] ("1997 Procedures"), including, but not limited to Chapter One, Sections A, B, E, F, G, I, J 1-8 and the DEC's Permit Application Review Procedures; and Chapter Two, Sections A, B, C, D, and E.

The Board's Preliminary Decision and Order of September 8, 2000, narrowed the scope of the appeal such that only stormwater runoff from the Project and the infrastructure proposed for its control and treatment were considered within the ambit of the Permit. The Board then ruled that any planned discharges from the garden center to be operated by Home Depot were outside the scope of the stormwater discharge authorized by the Permit.

Furthermore, the Board determines in this decision that compliance with the 1997 Procedures creates a rebuttable presumption of compliance with 10 V.S.A. §§ 1263 and 1264 and the 1997 Water Quality Standards and, therefore, if the answer to issue number (3) with respect to compliance to the 1997 Procedures is in the affirmative, then it is unnecessary to address issues (1) and (2). Moreover, because no party has offered evidence that the Project fails to comply with the DEC's Permit Application Review Procedures, the dispositive issue to be decided in this proceeding is:

Whether the Project Discharge complies with the ANR's 1997 Stormwater Management Procedures.

III. FINDINGS OF FACT

To the extent that any party's proposed findings of fact and conclusions of law are included below, they are granted; otherwise, they are denied. See Secretary, Agency of Natural Resources v. Upper Valley Regional Landfill Corporation, 167 Vt. 228, 242-243 (1997); Petition of Village of Hardwick Electric Department, 143 Vt. 437, 445 (1983).

General Description of Proposed Renovation and Redevelopment

1. The Permit Applicants plan to completely renovate and redevelop the Juster Mall located on Route 4 in the Town of Rutland, Vermont, in connection with the construction by Home Depot of a new home improvement products store. Home Depot will raze the entire main mall structure, with the exception of the former Hannaford Supermarket and

Osco Drug Store spaces, and will construct a 116,181 square foot retail home improvement store and a 17,117 square foot garden center. A space will be left between the Osco structure and the new Home Depot store for future construction of 13,120 square feet of new retail space. Space also will be provided for future construction of a free-standing 35,500 square foot retail structure. The existing free-standing bank building and the existing Panda Pavilion Chinese Restaurant will remain in their current locations. Once all construction is completed, including eventual construction of the 13,120 square foot building and the free-standing 35,500 square foot building, the total building square footage at the Juster Mall will be 894 square feet less than what currently exists. However, of the 30.48 acres occupied by the mall, the impervious area will increase by approximately 0.94 acres from the current 16.82 acres to a total of 17.76 acres of impervious area. This represents an increase of impervious area to total land area involved in the Project of 3.1%, from 55.1% to 58.2%.

2. The renovated and reconstructed Juster Mall will be served by the Rutland City Municipal Water and Sewer System. The Alpine Pipeline, which connects the Rutland City Sewer System to all land uses along Route 4 between the Town of Killington and the City, is adjacent to the site. The existing utilities on the property will be upgraded. A new water line will loop the site to service the structures. A new sewer collection system and pump station will connect to the present sanitary force main.

3. The Juster Mall was originally permitted and built in 1973 as a major commercial/retail center for the Rutland Region. It is located in the "Urban Center" of the Rutland Region under the Rutland Regional Plan. The Juster Mall property is located adjacent to Route 4, which is the major east/west highway in Central Vermont. The area around the Juster Mall property is characterized by other intensive commercial uses, including gas stations, retail stores, drive-through restaurants, banks and similar uses. In recent years, the Juster Mall has fallen into substantial disrepair.

4. The main portion of the Juster Mall property is owned by Homer and Ruth Sweet and presently is the subject of a ground lease and option to purchase held by Ann Juster. A small area of land owned in fee by Ann Juster will also be used in connection with the Project. Both parcels are the subject of a Purchase and Sale Agreement with Home Depot under which Home Depot is the duly authorized agent of both Sweet and Juster for purposes of making all permit applications and prosecuting any necessary appeals, including the present Permit appeal.

5. After the completion of all construction, Home Depot will be fully responsible for operation and management of the entire property, including general maintenance of the site and the stormwater discharge system.

Project Description

6. The Juster Mall has been served since its construction 27 years ago by a catch basin and detention pond-type stormwater discharge system. Stormwater from the site is presently collected in catch basins located throughout the site and conducted through pipes to the detention pond located adjacent to Route 4 where sediments settle out and treatment occurs. Stormwater is then discharged into an unnamed tributary of the Tenney Brook and then conveyed through a 72-inch culvert and drainage ditch before leaving the developed portion of the Permit Applicants' property. Some stormwater from the parking area presently travels by sheet flow across the pavement and then directly into the drainage ditch as was approved in prior permits for the Juster Mall.

7. The Permit at issue authorizes the renovation of the existing, permitted stormwater discharge system at the Juster Mall to treat stormwater runoff from the roadways, parking areas, roofs, and other impervious surfaces associated with the proposed reconstructed and expanded mall prior to discharge of this stormwater into an unnamed tributary of Tenney Brook ("Project"). Forty-two (42) new catch basins will be installed, in addition to reuse of six (6) of thirteen (13) existing catch basins presently part of the Juster Mall infrastructure. Additionally, the existing stormwater detention pond will be enlarged by 56,346 cubic feet. Stormwater will then be piped from the enlarged detention pond to the existing 72-inch culvert, which will be lengthened as part of the Project. The system after construction will thus consist of the catch basins, pipes, the detention pond and the pipe leading to the 72-inch culvert. Other existing stormwater infrastructure at the site will be rebuilt or repaired, as necessary.

8. The Permit Applicants propose using the infrastructure authorized by the Permit to discharge stormwater and wastewater from a proposed garden center to be operated by Home Depot. The Board previously ruled that discharges from the garden center cannot, as a matter of law, be included within the ambit of the Permit under appeal.

9. Tenney Brook and its tributaries are "waters of the state" as that term is used in 10 V.S.A. §§ 1263 and 1264. No studies have been done to determine the existing water quality of the waters receiving the Juster Mall discharge. However, Tenney Brook and its tributaries are not deemed "impaired" waters as that term is used in a regulatory context and they are not listed on the "303(d) list" of State "impaired" waters. ANR has not done a basin plan for the watershed encompassing Tenney Brook.

10. The actual point of discharge into waters of the State, otherwise known as the "receiving waters," will occur at a junction box near the main access road from Route 4 into the Juster Mall property, approximately 60 feet north of the enlarged detention basin. At the

junction box, treated stormwater from the enlarged detention pond will meet a stream of waters draining from off-site properties on the east side of Route 4. This stream, an unnamed tributary of Tenney Brook, is conveyed to the junction box under the main access road via a 36-inch culvert.

11. The Permit Applicants applied for and received the Permit from ANR for the discharge of stormwater, as defined in the 1997 Water Quality Standards and the 1997 Procedures. The 1997 Procedures were developed by ANR to provide guidance as to how stormwater discharges were to be evaluated for compliance with the 1997 Water Quality Standards. The 1997 Water Quality Standards and 1997 Stormwater Management Procedures were the ones in effect at the time Home Depot filed its Stormwater Discharge Application and so are the regulations applicable to the Project.

12. The present man-made drainage ditch, which receives waters from the 72-inch culvert, has developed wetland characteristics and is a significant wetland by virtue of its contiguity with a wetland complex appearing on the National Wetland Inventory Map for this geographical area. A Conditional Use Determination ("CUD") has been obtained from the ANR to allow relocation of the ditch to an area 50 feet to the north of its current location. That CUD is the subject of the pending appeal, Re: Home Depot, USA, Inc., et al., Docket No. CUD-00-07.

13. The increase in impervious area of the Juster Mall being constructed as part of the renovations and redevelopment of the site is .94 acres (3.1%). See Finding 1. This amount of impervious area is not a significant increase from a stormwater discharge perspective.

Design Assumptions

14. The primary goals of the 1997 Procedures relative to the Project are: (1) to insure that the 1997 Water Quality Standards are complied with; (2) to insure that the stormwater runoff flow from a 2-year, 24-hour storm event does not exceed the flow from the Project site in its undeveloped condition; (3) to insure that the stormwater disposal system is sized and designed to manage flows without undue erosion or reduction in quality of the receiving waters; and (4) to insure that sediments are collected and that treatment of stormwater occurs using "Best Management Practices" identified in the 1997 Procedures before stormwater from the development is discharged into waters of the state.

15. Home Depot's engineers reviewed an old photograph and permitting records and made a reasonable assumption that the undeveloped condition of the Juster Mall site prior to its construction in 1973 was 75% meadow and 25% brush. This assumption formed the basis of the Permit Applicants' stormwater discharge system design.

16. As part the stormwater discharge system design, a single study point was identified along the northern property line to accurately assess impacts of the proposed development. A computer model was then created to simulate stormwater discharge conditions for the Juster Mall site and a hydrologic analysis of both pre- and post-development conditions was performed to determine impacts and stormwater mitigation measures. A 2-year, 24-hour rainfall event was used as the design storm in the computer model as is required by the 1997 Procedures. Project stormwater discharge design was done with reference to Exhibits HD-12 and HD-13, the HydroCAD analyses which contain the calculations used to establish conformity with the 1997 Procedures, as well as Exhibit HD-11, USGS Watershed Map.

17. The HydroCAD Program incorporates TR-20 methodology for both runoff estimation, routing and storage analysis. This is the state-of-the-art model used in connection with large commercial projects in Vermont and is required by ANR in connection with applications for stormwater discharge permits.

18. The stormwater study point is referred to in the Plans as Study Point AS/N001 and is located along Juster Mall's northerly property line. The Juster Mall site is divided into three watershed areas for the purpose of analyzing stormwater runoff during pre-development conditions and six watershed areas during post-development conditions. Stormwater disposal in these areas before and after construction of the Juster Mall is as follows:

PRE-DEVELOPED (BEFORE MALL CONSTRUCTION), EXHIBIT HD-14:

Area 1
Stormwater discharges via sheet flow, overland flow, and on-site swales to Study Point 1.

Area 2
Stormwater discharges via sheet flow, overland flow and swales to Study Point 1. This stormwater routing includes a swale which runs along the southeasterly property line including portions on adjacent parcels. This swale was constructed for the existing Juster Mall with portions routed through a stormwater system that by-passes the detention pond and discharges via the 72-inch culvert.

Area 3
Stormwater discharges via sheet flow, overland flow and onsite swales to Study Point 1.

POST-DEVELOPED (AFTER HOME DEPOT CONSTRUCTION), EXHIBIT HD-15:

Area 1
This watershed area is comprised of the building roof (Home Depot, and the other buildings along the west side of the site), and natural terrain areas along the western slope of the property. The stormwater discharges via grassy swales and roof discharge pipes to Study Point 1.

Area 2
This watershed area is comprised entirely of natural terrain along the southerly end of the property. The stormwater discharges via sheet flow, overland flow, and grassed swales into an existing stormwater system which bypasses the downstream detention/sedimentation pond.

Areas 3, 4 and 5
These watersheds incorporate almost all of the post-developed impervious pavement areas. The stormwater discharge is routed via overland flow on paved surfaces and through the old and new catch basins to the upgraded detention/ sedimentation pond. The stormwater collection system has been modified to account for the new site

The renovated system layout utilizes portions of the existing system where feasible. The existing system had thirteen stormwater runoff settling chambers located at storm inlets in the parking lots. The 42 new catch basins each have an 18-inch sump to assist in sediment containment. Six existing stormwater runoff settling chambers will remain as they are, undisturbed by demolition work. Treatment will occur within the detention/sedimentation pond which will be upgraded in size and outlet structures for a 2-year/24-hour storm event. The existing pond was designed and modified during previous permit submittals for a 10-year storm event. As noted above, the pond discharges to a 72-inch culvert to be extended and then to a ditch along the northern property line.

Area 5 also includes the roof area of the proposed 35,500 square foot free-standing retail building along the northern boundary of the property. The roof drains for the proposed 35,500 square foot retail building will be connected to the stormwater collection system and routed to the detention basin.

Area 6
This watershed is comprised of existing buildings (the restaurant and bank buildings), roofs, paved impervious area and natural terrain, including off-site

drainage east of Route 4. Stormwater begins at the northeast end of the property where the runoff discharges via overland flow to a stormwater collection system which bypasses the detention pond, and then discharges into a 72-inch diameter culvert.

19. The most significant improvements which are being made to the existing stormwater discharge system at the Juster Mall are the additional catch basins and enlargement and renovation of the detention pond. These improvements are the primary ones that ensure that the goals of the 1997 Procedures and the 1997 Water Quality Standards will be met - namely, that (1) the flow of water from the site will not exceed the flow leaving the site in its natural condition from a 2-year, 24-hour storm; (2) grit, solids, and the like will be precipitated out before leaving the site; and (3) any substances or chemicals suspended in the stormwater stream will be diluted and treated.

20. The detention pond and its outlet structure will be upgraded to meet pre-developed stormwater numbers generated for a 2-year storm on the pre-developed condition described above. The outlet structure incorporates a gravel jacketed riser pipe with 2-inch orifice holes placed around the pipe. The existing pond storage has been increased from 75,583 cubic feet (Elev. 652) to 131,931 cubic feet. This is an increase of 56,348 cubic feet (≈75%) from the existing detention pond. To provide for this increase in storage, a retaining wall was added along the east (Route 4) side of the pond with the remaining pond sides to be regraded.

21. The improved pond will provide stormwater treatment based upon engineering "Best Management Practices." The following detention pond requirements are based upon a 2-year peak design flow of 3.56 CFS at a point elevation of 648.2 feet.

Required Surface Area: 254 SF/CFS peak outflow x 3.56 CFS
= 904 SF (minimum required)
Provided Surface Area: ≈ 16,360 SF
Required Volume: 46,476 CF (minimum required)
Provided Volume: ≈ 58,500 CF

22. The improved pond thus exceeds the 1997 Procedures' requirements for both detention and treatment. In addition, this is a significant improvement from the existing Mall stormwater system and will provide improved treatment and detention from what occurs today.

Conformance with treatment and control procedures of Chapter 2, 1997 Procedures

23. The Project meets the requirements of the 1997 Procedures and specifically incorporates the treatment and control practices specified in Chapter 2 as required under Section I. of the 1997 Procedures. There is no applicable basin plan for this Project as recited in that Section. The Project also satisfies Section J. of the 1997 Procedures.

24. The specific numbered requirements of Chapter 2 of the 1997 Procedures are satisfied as follows:

A. GENERAL REQUIREMENTS

1. The design of stormwater control structures shall be based upon a 2-year, 24-hour storm event.

The design of the stormwater control structures has been based upon a 2-year, 24-hour storm event.

2. Developments subject to these Procedures shall be designed to maximize the stormwater infiltration capabilities of the site.

The site consists entirely of the existing pavement comprising the roadways and parking areas of the Juster Mall. There is minimal infiltration capability at the site.

3. Stormwater runoff from all roads and parking areas shall be treated, through the use of the best management practices described in Section D. to minimize the discharge of pollutants to waters of the State.

The Project has used the best management practices described in Section D. to minimize discharge of pollutants to the waters of the State.

4. Developments resulting in the creation of greater than five acres of impervious surface may make use of the vegetative best management practices described in Section D. 3 and D. 4 (vegetated filter strips, grassed swales), but not as the primary means of treatment.

Portions of the site utilize these practices. They include the area west of the buildings and the vegetated buffer proposed for north of the extended parking area and south of the stream. The primary treatment, however, is the detention pond. Notwithstanding this, the Project does not involve the creation of greater than five acres of impervious surface.

5. All stormwater runoff flows shall be managed, and appropriate control structures shall be provided when necessary, to minimize the potential for stream bank erosion due to changes in the volume and peak rate of runoff from site development.

The detention basin and outlet structure have been designed to accommodate this provision of the 1997 Procedures. The outlet structure incorporates a gravel jacketed riser pipe with 2-inch orifice holes placed around the pipe to attenuate outflow from the detention pond. The storage volume, surface area, and outlet control thus are designed to meet this condition. In addition, the relocated drainage ditch incorporates the following erosion control features:

1. Rip-rap for the first 50 feet at the discharge of the 72-inch culvert outfall.
2. Erosion control matting along the stream banks.
3. Stream substrate consisting of primarily 4-inch gravel interspersed with pea-sized material.
4. A large number of plantings along the stream bank.

6. Control of stormwater runoff flows shall be required when stormwater runoff from a development in which the ratio of the area of the water shed at the point of discharge furthest downstream measured in square miles and the area of all impervious surfaces measured in acres is less than 3.0. See Section E.

Control of stormwater runoff flow rates is being provided with the proposed design.

7. All stormwater treatment and control structures shall be sited to provide adequate vegetated buffers to waters of the State.

The closest water of the State would be the point where the detention basin discharge pipe meets the flows from offsite. This occurs approximately 60 feet north of the detention basin in an underground junction box. The closest above-ground point would be where the 72-inch culvert discharges to daylight. That occurs approximately 680 feet from the detention pond at the point of the redesigned drainage ditch. The area surrounding the detention pond, and the slope leading down to the drainage ditch are both vegetated and provide adequate buffers.

B. INFILTRATION

1. Stormwater infiltration systems should be utilized on sites that are physically suitable (on the basis of soil infiltration rates, depth to bedrock and depth to seasonal high water table) to feasibly dispose of runoff in this manner.

The Project primarily consists of reuse of existing impervious areas and there is no significant potential for infiltration on this site. As a consequence, the site is not physically suited to feasibly dispose of runoff in this manner.

2. Infiltration systems shall conform with the requirements of the Vermont Underground Injection Control Program.

This standard is not applicable to the site.

3. Stormwater runoff from roads and parking areas shall be pretreated, by means of vegetated filter strips, grassed swales and other appropriate best management practices, prior to entering an infiltration system.

This provision is not applicable to the site as an infiltration system is not being used.

4. Subsurface infiltration systems shall not receive runoff until the entire contributory drainage system has been fully stabilized, including the establishment of a proper vegetative cover.

This provision is not applicable to the site as an infiltration system is not being used.

C. TREATMENT - GENERAL REQUIREMENTS

1. Runoff from roads and parking areas shall be treated through the use of one or more of the best management practices described in Section D.

Runoff from roads and parking areas are treated through the use of an enlarged detention pond in conformity with Section D., as described below.

2. Developments resulting in the creation of greater than five acres of impervious surface may make use of the vegetative best management practices described in Section D.3 and D.4 (vegetated filter strips, grassed swale), but not as the primary means of treatment.

As noted above, portions of the site utilize these practices. They include the area west of the buildings and the vegetated buffer north of the parking and south of the stream. The primary treatment, however, is the detention pond. In addition, the Project will not result in the creation of greater than five acres of impervious surface.

3. Treatment shall be incorporated as an integral part of the site design and shall consider topography, watershed properties, receiving water qualities, and the size and nature of the proposed development.

As noted above, the Project is an existing improved site, not unimproved land. Treatment is achieved through improvement of the stormwater detention/sediment pond, which is already on the site, and discharge from that pond into receiving waters. Detailed calculations showing the appropriateness of the size and nature of the system have been submitted to the Board. See Exhibit HD-10, Schedule D-S/N001; Exhibits HD-12 and 13, HydroCAD analysis; Exhibit HD-24 Erosion Control and Typical Details. This type of treatment is appropriate for the Project.

4. Treatment of stormwater runoff must occur on the development site and prior to discharge to waters of the State.

Treatment of the stormwater occurs in the detention pond which is located on the Project site. Only treated stormwater is discharged to the junction box located approximately 60 feet north of the detention pond.

D. TREATMENT - BEST MANAGEMENT PRACTICES

Item 2. Detention Basins

The "best management practice" used for stormwater treatment at the Project is a detention pond, which has been sized to conform with the requirements of this Section.

a. A minimum of the first inch of stormwater runoff shall be collected in the pond or basin for treatment.

This standard is satisfied by the Project.

b. A minimum of 254 square feet of basin area at the design water surface per cubic foot per second (cfs) of peak outflow shall be provided for sediment removal or a minimum of 3,600 cubic feet of volume per contributing acre shall be provided for sediment removal.

This standard has been satisfied by the Project. The 1997 Procedures require 904 square feet; the Project design provides for 16,360 square feet. A total volume of 58,500 cubic feet has been provided which exceeds the required minimum of 46,476 cubic feet.

c. Side slopes shall be no steeper than 3H:1V.

This standard is satisfied by the Project. Sideslopes of the detention pond are no steeper than 3H:1V. There is a vertical retaining wall in one portion of the pond. However, this does not constitute an erodeable side slope.

d. Length to width ratio shall be no less than 2:1.

The Project detention basin satisfies this length to width ratio.

e. At a minimum, perforated riser pipes or comparable designs shall be used for outlet structures. Gravel jacket perforated riser pipes are recommended to achieve higher pollutant removal.

The outlet structure incorporates a gravel jacketed riser pipe with 2-inch orifice holes placed in the pipe.

f. Inlet and outlet structures shall be located to prevent short circuiting and ensure that the entire basin is available for treatment.

Inlet and outlet structures are separated by approximately 80 feet. The design meets this requirement.

g. A minimum of an 18 inch sump shall be included for sediment collection and sediment storage.

The design incorporates this requirement as well.

E. CONTROL OF STORMWATER RUNOFF FLOWS

a. Control of stormwater runoff flows from all impervious surfaces shall be accomplished by limiting the post-development peak discharge rate from the site so that it does not exceed the pre-development peak discharge rate from the site for a 2-year, 24-hour storm event.

As noted above, this standard is met by the Project design.

b. Wetlands, lakes, and ponds may be used in their natural state to assist in the control of treated stormwater, in accordance with the Vermont Wetland Rules.

Ultimate discharge of treated stormwater and receiving waters from the site is into a manmade ditch which has become a Class Two wetland over time and which will be relocated as part of the Project in conformity with the Vermont Wetlands Rules. Authorization for the relocation of this ditch has been obtained from the ANR, but is on appeal in a companion CUD case. See Finding 12.

c. Additional control of treated stormwater (e.g. for a 10-year, 24-hour storm event) may be required if site-specific considerations warrant the attenuation of larger storm events.

No site specific considerations warranting attenuation of larger storm events are involved in the Project.

25. The Friends's arguments regarding alleged deficiencies in the stormwater design for the Project essentially fall into two categories: First, Friends allege that the Permit Applicants did not make correct assumptions regarding the pre-development condition of the Mall site, i.e.: whether, 27 years ago, the site consisted of 75% meadow with 25% brush as opposed to half meadow and half forest. Friends allege that this assumption caused the Permit Applicants to underdesign the stormwater discharge system for which approval is being sought in this case.

26. Second, Friends allege that the Permit Applicants assumed that more of the two-inch holes in the detention pond outlet riser pipe will be blocked by the surrounding crushed stone than it should have. The Permit Applicants assumed that the flow through a two-inch hole blocked by stone would equal the flow through a one-inch hole with no stone blocking it.

Friends argue that the Permit Applicants should have assumed that less of the dimension would be blocked.

27. The 1997 Procedures require the Permit Applicants to insure that the flow rate of stormwater leaving the renovated and redeveloped Juster Mall site will not exceed that which left the Mall site in its undeveloped condition during a two-year 24-hour storm. Due to the fact that the site in question is a 27-year old shopping mall, and not undeveloped land, the Permit Applicants made reasonable assumptions regarding what the site was like over 27 years ago.

28. As noted above, the Permit Applicants relied primarily on Exhibit HD-29**,** a photograph taken of the Juster Mall site during the initial Act 250 proceedings permitting its construction, and Exhibit HD-30, a certification from John Wright, P.E. regarding the then condition of the site. Mr. Wright was involved in permitting the initial Juster Mall construction and this letter is part of the official record of the original Act 250 proceeding. As is noted in Mr. Wright's letter, the site consisted of "Mostly open meadow". The Permit Applicants' engineers also undertook an independent review of ANR's files with respect to the Juster Mall in coming to their conclusions regarding the predevelopment condition of the site.

29. Based upon the foregoing exhibits, it was reasonable for the Permit Applicants to assume that the predevelopment condition of the site consisted of 75% meadow and 25% brush rather than 50% meadow and 50% forest. While Friends argued that a more conservative assumption was warranted given the limited facts presented by the Permit Applicants on the site's pre-development condition, Friends did not provide compelling evidence for its alternative assumption. The Board therefore concludes that the Permit Applicants' pre-development site condition assumption was reasonable.

30. Friends also took issue with the Permit Applicants' assumptions with respect to the riser pipe outlet structure in the detention pond. As noted above, there is a vertical pipe in the stormwater detention pond in which two-inch holes are drilled and through which stormwater outflow occurs from the detention pond off of the site. These holes are drilled vertically along the length of the pipe and then also at its base, i.e. at the bottom of the detention pond. All the holes are surrounded by a column of crushed stone which serves to further attenuate water flow and also serves to filter out larger suspended solids which then precipitate to the bottom of the pond.

31. As noted above, Friends allege that the Permit Applicants assumed that the stone would block more of the two-inch holes than they believe is reasonable. The Permit Applicants assumed that the stone would reduce the effective two-inch opening to the equivalent

opening of a one-inch hole without stone. Friends believe that the stone will actually block less of the area of the holes thus increasing the stormwater flow rate from the site.

32. While differences in assumed blockage of the holes may be significant under certain circumstances, no compelling evidence was produced indicating that flow through a two-inch hole blocked by stone is not approximately the same as that through a one-inch hole with no stone. Accordingly, the Board concludes that the Permit Applicants' assumption on this issue is reasonable under the circumstances.

33. Even if for some reason the Permit Applicants' assumptions were to be subsequently proven wrong, ANR has authority to require the Permit Applicants to revise the system or may revoke the Permit. Accordingly, the Permit Applicants could be directed to replace the riser pipe with a pipe with smaller holes that would address the Friends's concern.

Snow Disposal

34. For the past 27 years, snow has been disposed of at the Juster Mall by piling the snow along the south and east property lines and in the vicinity of the stormwater detention pond. Snowmelt then goes into the stormwater detention pond and is disposed of through the balance of the stormwater discharge system.

35. The current Project will use essentially the same snow disposal plan. Snow from the parking lot will be plowed into piles along the south and east property lines and adjacent to the stormwater detention pond. The runoff from the melting snow will then run into the detention pond and be treated by that facility. In the highly unlikely event that the area designated for snow storage becomes filled to capacity, snow will be trucked to an off-site storage area.

36. The Permit Applicants have not developed a written snow management plan to minimize the discharge of pollutants to waters of the State. Such a plan must be developed, filed with and approved by the Secretary of ANR, and implemented to assure that snow is not plowed directly into or stockpiled near waters of the State, particularly at the northern edge of the proposed extended parking area. A plan must contain provision(s) for ensuring compliance with the practices and standards set forth in that plan, including, but not limited to, the addition of a physical barrier preventing the plowing/stockpiling of snow in the location of the extended parking area to prevent untreated runoff into the new drainage ditch stream channel and adjacent Class Two wetland. Compliance also could be provided through a program of monitoring to ensure that violations can be easily traced.

Buffer Zone Protection

37. The vegetative buffer, between the northern edge of the extended parking area of the renovated and redeveloped Juster Mall and the stream to be relocated into the proposed drainage ditch, will vary between 25 and 60 feet in width, with most of the buffer being less than 50 feet in width. The Permit Applicants assert that this is the maximum practicable buffer which can be established in this area, meeting both erosion-control and engineering concerns.

38. The Permit Applicants did not consult, nor did the ANR require that they use, the ANR policies or guidance documents regarding the protection of riparian buffer zones when designing the new drainage ditch for the relocated stream channel. Although the Board concludes that it cannot require a riparian buffer protection and management plan for the stream within the ambit the Permit on appeal, the use of an adjacent Class Two wetland to assist in the control of treated stormwater must nevertheless be in accordance with the Vermont Wetland Rules. See Chapter 2. Section E.2. Therefore, the Board concludes that the vegetative buffer provided for as mitigation in Condition D. of CUD-00-07, issued this day, is a reasonable measure for achieving the relevant benefits of a riparian buffer zone for the relocated stream -- namely, erosion control and surface and groundwater protection as well as the intended purpose of fisheries habitat enhancement.

III. CONCLUSIONS OF LAW

Based upon the Board's review of the applicable law, the Board concludes that satisfaction of the 1997 Stormwater Management Procedures constitutes presumptive compliance with 10 V.S.A. §§ 1263 and 1264[1] and the 1997 Vermont Water Quality Standards. The Board further concludes that the Permit Applicants have provided substantial evidence that their Project complies with the 1997 Stormwater Management Procedures. The Friends have not successfully rebutted evidence of compliance with the 1997 Procedures. Therefore, the Board concludes that the Project as proposed by the Permit Applicants is entitled to a Stormwater Discharge Permit. The Board affirms the decision of the Secretary of ANR to issue such a permit, with minor modifications, and amends certain conditions of Permit No. 1-0460 to better reflect the record of this appeal and provide greater clarity concerning the Permit Applicants' obligations under the amended Permit.

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[1] Title 10 V.S.A. § 1264 was comprehensively amended by Act No. 114 (1999 Adj. Sess.) eff. May 19, 2000. References to § 1264 in this decision are to the statute as it existed prior to May 19, 2000.

The statutory and regulatory scheme, at the time of the filing of the Project application, clearly delegated the task of regulating stormwater discharge from improved sites and determining conformity with the 1997 Water Quality Standards to the Secretary of ANR due to the unique nature of such discharges. The 1997 Procedures constitute the reasonable exercise of that delegated authority.

The management of stormwater discharges is acknowledged as being different from other discharges. See 10 V.S.A. § 1264 (1998); 1997 Water Quality Standards, Section 2-05. Storm-water runoff consists of natural precipitation and substances suspended and dissolved in that precipitation only. The volume and content of stormwater also changes constantly during a storm event. Title 10 V.S.A. §1264, which is the statute authorizing the Stormwater Discharge Permit program, specifically states that the stormwater discharge plan to be adopted by the Secretary of ANR ". . . shall recognize that the runoff of stormwater is different from the discharge of sanitary and industrial wastes because of the influence of natural events of stormwater runoff, the variations in characteristics of those runoffs, and the increased stream flows and natural degradation of the receiving water quality at the time of the discharge." 12 V.S.A. §1264(b) (1998).

Under 10 V.S.A. § 1263 all discharges, including stormwater discharges, must achieve compliance with the Vermont Water Quality Standards. However, 10 V.S.A. § 1264 and the 1997 Water Quality Standards themselves recognize that stormwater is a different category of discharge than the other types of discharges dealt with under Vermont law at the time the Permit Applicants filed their Permit Application. For example, Section 2-05 of the 1997 Water Quality Standards pertaining to stormwater management reads as follows:

> In accordance with the provisions of 10 V.S.A. §1264, it is the policy of the State of Vermont that these rules be implemented in a manner that recognizes the inherent differences between the discharge of stormwater runoff and other discharges.
>
> In implementing this policy, the Secretary [of ANR] is encouraged to exercise the full range of discretion authorized by the Act [10 V.S.A. ch. 47] and shall manage discharges of stormwater runoff in as cost-effective a manner as possible, consistent with these rules and any applicable basin plan.

Emphasis added. The 1997 Water Quality Standards thus defer to the 1997 Procedures with respect to regulating stormwater discharges. The 1997 Procedures at Chapter 1, Item I specifically state that:

> The [ANR] recognizes that the effluent monitoring requirements traditionally used

> to determine compliance with the Vermont Water Quality Standards are neither a feasible nor cost-effective method for determining compliance when applied on an individual basis to stormwater runoff. This is due to the inherent differences in stormwater runoff including the large and rapid fluctuations in stormwater runoff quantity and quality, the large and rapid fluctuations in stream quantity and quality, and the intermittent nature of stormwater.

Emphasis added. Many of the chemical levels established by the 1997 Water Quality Standards cannot be adequately measured and evaluated during a storm event. Accordingly, it may not make sense to monitor stormwater quality for the numerical pollutant levels contained in the 1997 Water Quality Standards as one must do for other types of discharges from commercial or industrial operations. The 1997 Procedures go on to state as follows:

> For the purposes of demonstrating compliance with the Vermont Water Quality Standards in receiving a stormwater discharge permit, the Applicant shall demonstrate that the design of the development incorporates the treatment and control practices specified in Chapter Two of these Procedures, or an applicable basin plan. The [ANR's] determination of continued compliance with the Vermont Water Quality Standards will be based on the Permittee's compliance with the terms and conditions of the stormwater discharge permit, and evaluation of the receiving water.

1997 Procedures Ch. 1 Section 1. As a consequence, under the applicable statutory and regulatory scheme, compliance with the design standards contained in the 1997 Procedures is presumptive compliance with the 1997 Water Quality Standards. Because the presumption of compliance has not been successfully rebutted, the Board must issue a Permit for the Project when the Board finds that the design proposed by the Permit Applicants satisfies the requirements of the 1997 Procedures.

In the present case, the Permit Applicants have presented credible and convincing technical evidence of conformity of the Project design with the 1997 Procedures. This includes a detailed description of the assumptions used to assess the pre-development condition of the site, detailed computer calculations and modeling to show conformity of the system to the 2-year, 24-hour storm standard, and a line-by-line description of how the design meets the specific standards of the 1997 Procedures. The Board concludes that the assumptions relied upon by the Permit Applicants and supported by ANR are reasonable, that the calculation and modeling methodology employed are those called for under the 1997 Procedures, and that the technical design and compliance standards of the 1997 Procedures, as reflected in the Findings of Fact above, have been met.

Under these circumstances, the Board concludes that the Project stormwater discharge system**,** if constructed as described in the above decision and the exhibits admitted in this proceeding, will satisfy the 1997 Procedures and therefore the applicable statutory and regulatory standards. Accordingly, the Board hereby issues Amended DEC Permit #1-0460 (attached) to reflect the following changes supported by the record in this appeal.

The Board further notes that the scope of the stormwater discharge authorized by the Amended Permit does not include any other discharges, including non-stormwater discharges from the garden center proposed to be operated by Home Depot. The Board addressed the scope of appeal in its Preliminary Decision and Order of September 8, 2000, and expressly excluded consideration of the waste stream from the garden center in its review, leaving it to the Permit Applicants and/or the Secretary of ANR to determine whether a new discharge permit is required for such operation. The Board recognizes that garden centers, even those limited to selling containerized plants, may present unique pollution control problems due to the presence of herbicides, pesticides, and other chemical residues attributable to plant care and maintenance. Therefore, the Board, while not authorizing the use of the proposed stormwater system for treating and disposing of discharges from the garden center, believes that the Secretary has authority to specifically evaluate such a proposed discharge and impose conditions to assure the protection of surface and ground water quality. Such conditions may include the requirement that the applicant prepare, file and implement a pollution prevention plan.

In conclusion, the Board observes that the ANR is now authorized by the amended provisions of 10 V.S.A. § 1264 (Act No. 114, 1999 Adj. Sess.) to adopt new stormwater rules. The Board hopes that in developing those rules, the ANR will take seriously the concerns raised by Friends and expressed in Board questions during the course of the hearing in this case concerning the need for better monitoring and clearer, more specific conditions to assure compliance with the applicable Water Quality Standards.

IV. ORDER

For the forgoing reasons, the Board hereby orders:

1. The decision of the Secretary of ANR to issue DEC Permit #1-0460 is affirmed in part and modified in part;

2. Amended DEC Permit #1-0460 is granted; and

3. Jurisdiction is returned to ANR.

Dated at Montpelier, Vermont, this 6th day of February, 2001.

WATER RESOURCES BOARD

/s/ David J. Blythe
David J. Blythe, Chair

Concurring:
Barbara S. Farr
John D.E. Roberts
Gail Osherenko*

* Gail Osherenko, a former Board member of the Water Resources Board, participated in the hearing and deliberations with respect to this appeal pursuant to an appointment order issued under authority of 10 V.S.A. § 905(1)(F).