2007

Footprints

Recommended Citation
Whitman-Hanson Regional High School

Rivernet

Students:
Amanda Morrison
Elizabeth Stack
David Tabor
Zack Clark
Our Mission

- Our mission, as the Whitman-Hanson Rivernet club is to gain more knowledge about how the new Whitman-Hanson High School building has affected the surrounding environment.
Footprints
The Question:

- Much like the footprint of the deer, what kind of footprints have we left? Are we damaging the environment? Are we helping to better buffer the pollutants from escaping into the environment?
1. Catch basin to be constructed for AASHTO H5-20-44 loading.
2. Two weep hole openings to be precast into riser section (see specs).
3. Frame and grate model numbers may vary between paved and non-paved areas - see spec
4. Install catch basin so that hood is not located directly below inlet opening.
5. When using brick to adjust frame and cover to grade, use two brick courses minimum and four courses maximum.

**NOTES:**

**MORTAR BED ALL AROUND**

**FINISH GRADE**

**FRAME & GRATE AS SPECIFIED**

**SLAB TOP AASHTO H5-20-44.**

**RUBBER GASKET SEAL**

**HEIGHT OF PRECAST CONCRETE RISER SECTIONS VARIES 12" TO 48"**

**PROVIDE "V" OPENINGS FORMED TO PIPE O.D. + 2" PRECAST IN RISER SECTION. INSTALL PIPE FLUSH WITH INSIDE OF WALL.**

**PRECAST MONOLITHIC BASE**

**REINF. PLACED ACCORDING TO ASTM C-478.**

**UNDISTURBED OR COMPACTED SUBGRADE. MIN. 6" GRAVEL OR CRUSHED STONE BASE SHALL BE REQ'D WHERE SUBGRADE HAS BEEN UNDERCUT OR IS UNSUITABLE.**

**CATCH BASIN WITH HOOD**

**SCALE: N.T.S.**
Our Hypothesis

The out flowing water should be a better quality than within the detention pond because the cattails will filter the water naturally.
Problems encountered

- Water quality issues
- Dirt bikes and quads driving through wetlands
- Trash
- Pollution from parking lots
- Deer eating blueberry bushes
Percent Composition of Macroinvertebrates in the Pond 11/13/06

- Dragonfly larva: 33%
- Damselfly larva: 18%
- Backswimmer: 18%
- Beetles (Coleoptera): 7%
- Ramshorn snails: 6%
- Pond snails: 1%

Legend:
- Dragonfly larva
- Damselfly larva
- Backswimmer
- Beetles (Coleoptera)
- Ramshorn snails
- Pond snails
Percent Composition of Macroinvertebrates in the Outflow 11/13/06

- Backswimmer: 9%
- Beetles (Black Diving): 3%
- Green frog tadpole: 3%
- Worm: 6%
- Ramshorn snail: 3%
- Pond Snail: 35%
- Damselfly larva: 3%
- Marsh fly adult: 3%

The pie chart visually represents the percentage composition of macroinvertebrates in the outflow on 11/13/06.
Dissolved Oxygen for Pond 2006

DO (mg/L)


Dates
Dissolved Oxygen for Outflow

DO (mg/L)

11/14/2006

12/15/2006

Outflow Dates
Conclusion

- Observations (visual and photographic) suggest that the outflow water is cleaner than the detention basin water.
- However, results are inconclusive. More quantitative data is needed. Turbidity and dissolved oxygen data could be more complete.
Pond
Outflow
Outflow
Conclusion

- Footprint size
- Vernal pool and pond organisms are using the newly created wetlands.
- Students and teachers are working to improve environmental conditions around the school.
Thank you for your efforts to leave small footprints on the Earth!

The Whitman-Hanson RiverNet Club