

## Storm Water Management and Mosquitoes – Tom Smith

- a) History
  - 1) 1860s – massive industrial development
  - 2) Disease issues drive changes to storm water management
- b) Stormwater BMP
  - 1) Hardly mentions mosquitoes at all
  - 2) Revision on hold
- c) NPDES permits
  - 1) Use to be sure stormwater is being managed to decrease mosquito issues
  - 2) Oddly enough, mosquitoes are protected by State fish and boat laws
- d) Conservation Districts
  - 1) Erosion and sediment control only
  - 2) No mosquito control
- e) MS4 Plan – pollutants in discharge
  - 1) Trash
  - 2) Pet waste
  - 3) Illegal dumping
- f) Complaints because of stormwater
  - 1) Why is there a complaint?
    - (i) Algae?
    - (ii) Crane flies?
    - (iii) Mosquitoes?
  - 2) Requires education of citizens
  - 3) Mosquito complaints and stormwater
    - (i) Things that are rarely an issue
      - (a) Wetlands are a benefit
      - (b) Rain gardens are rarely a problem as long as they drain within 48 hours
      - (c) Sediment ponds
        - (i) Depends on how long the water is held
        - (ii) Case by case basis
    - (ii) Development site issues
      - (a) Catch basins
      - (b) Tires
      - (c) Ruts
      - (d) Spill pans under fuel tanks
      - (e) Concrete washouts
      - (f) Abandoned sites
    - (iii) Retention ponds – usually no issues
    - (iv) Detention ponds – BMPs can be bad practices for mosquito control
      - (a) No problem
        - (i) Dry out – no concern
        - (ii) Keep mowers out
      - (b) Problems
        - (i) Shallow water retention breeds mosquitoes

- (ii) Riprap
- (iii) Unmaintained systems
- (iv) Mower activity
  - 1. Tire ruts
  - 2. Grass clippings
  - 3. Resting habitat disturbed
- (v) Inlet and outlet structures
- (vi) Cattail marshes
- (v) Sewage Treatment Plants
- (vi) Road salt storage can create brackish water habitats
- (vii) Flooding issues from stormwater discharge
- 4) Always have to check out adjoining properties for breeding sites
  - (i) Garbage in people's yards
  - (ii) Catch basins
    - (a) BioQuip Catch Basin Larval Dip Net
    - (b) Treat catch basins that are breeding
      - (i) Product used depends on particular situation
      - (ii) Variety of products available
- 5) Natural areas tend to have fewer mosquito problems
  - (i) Not disturbing area
  - (ii) More biodiversity
  - (iii) Mosquitoes tend to stay within area