MAST

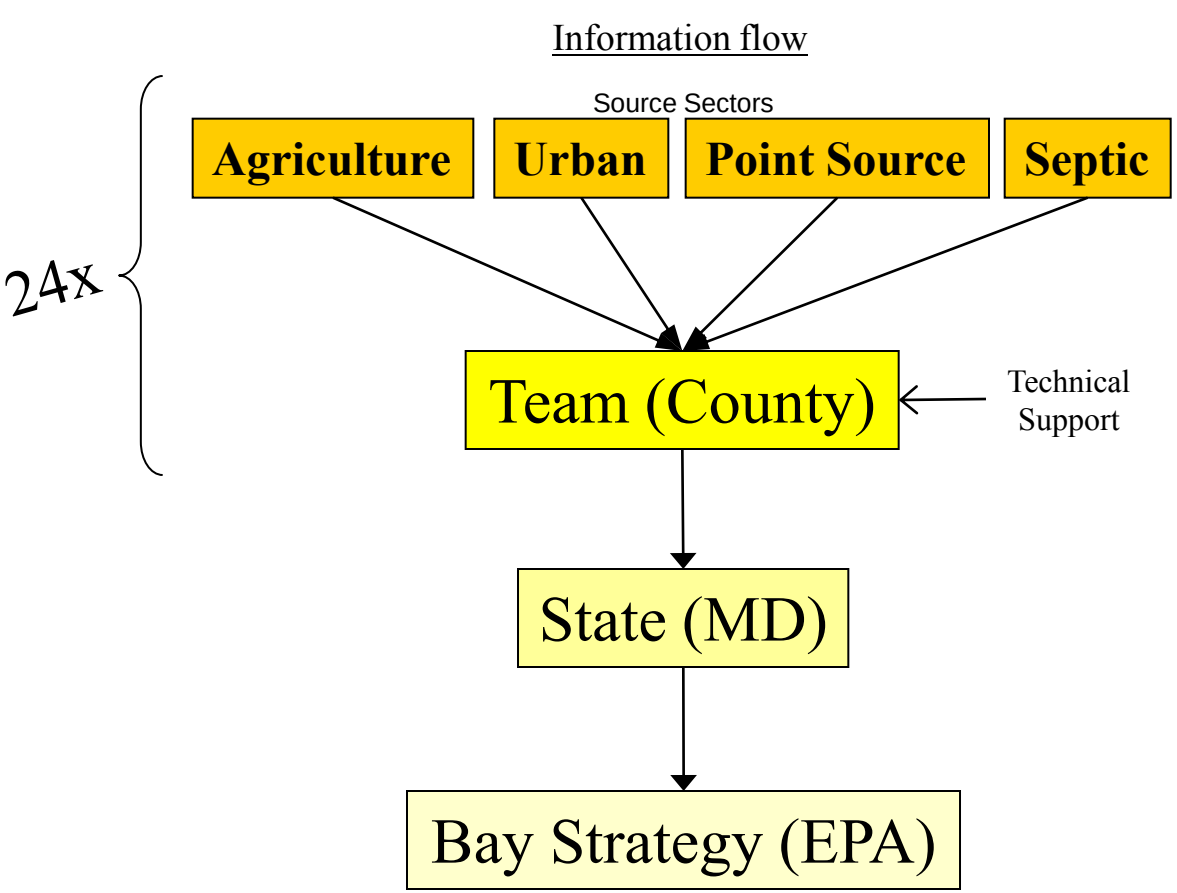
Maryland's Assessment and Scenario Tool

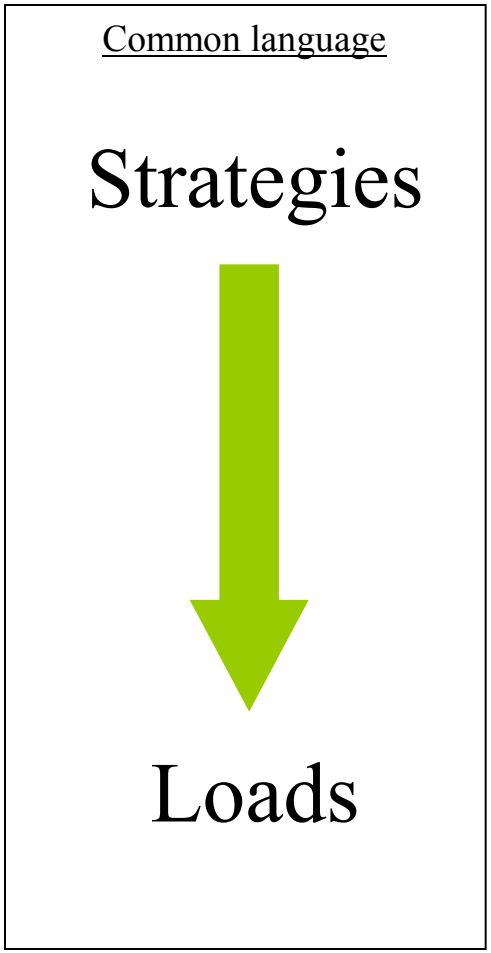
April 13, 2011

Scenario Development Process

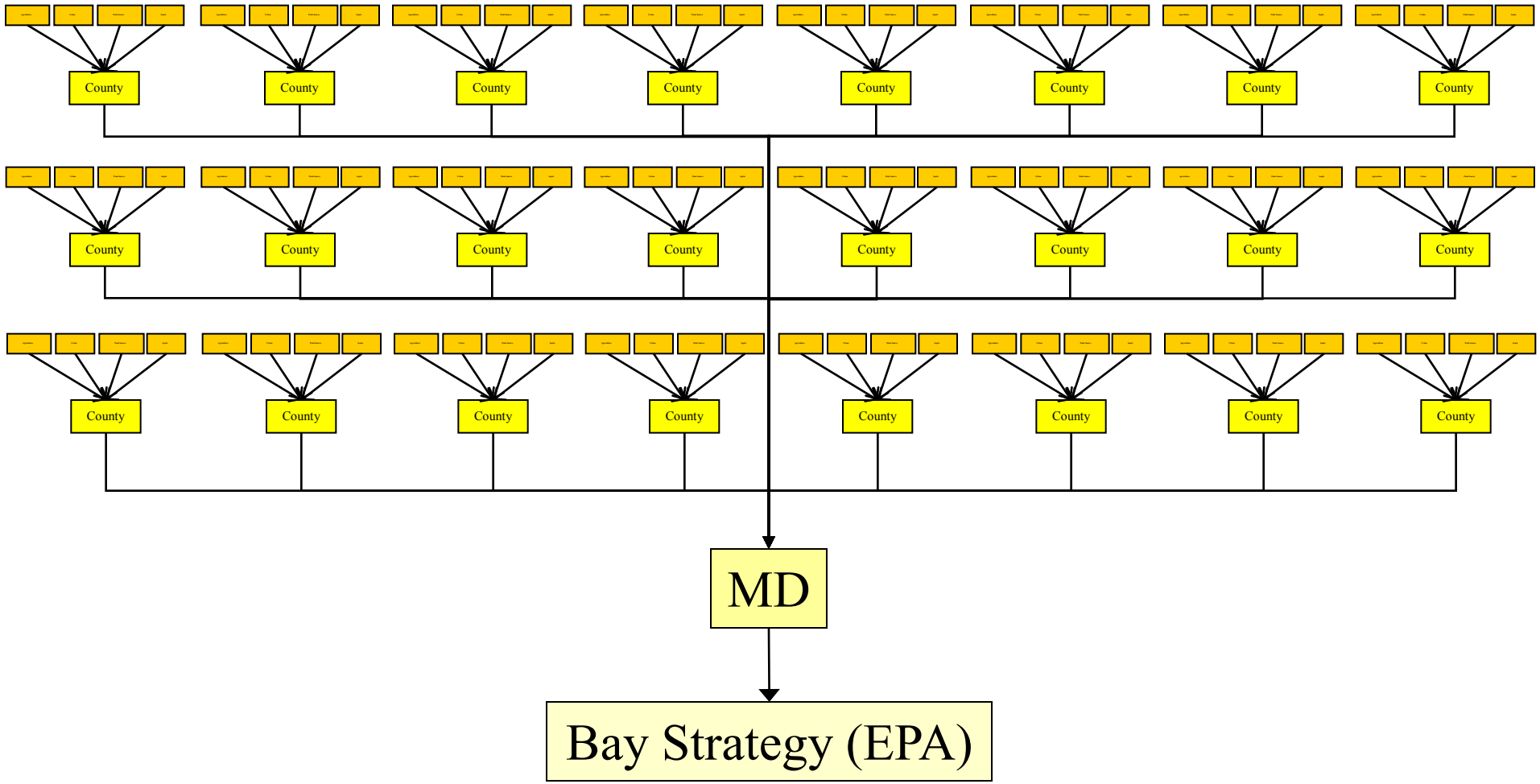
- Modeling
  - Use reduced form model to produce preliminary results
  - Consistent with EPA Bay TMDL models
  - Stakeholder involvement in scenario development
  - Iterative process
- Information Management System to
  - Facilitate consistent and transparent approach
  - Combine WIP Team scenarios for direct input into EPA Bay Model

Need for Consistent Process

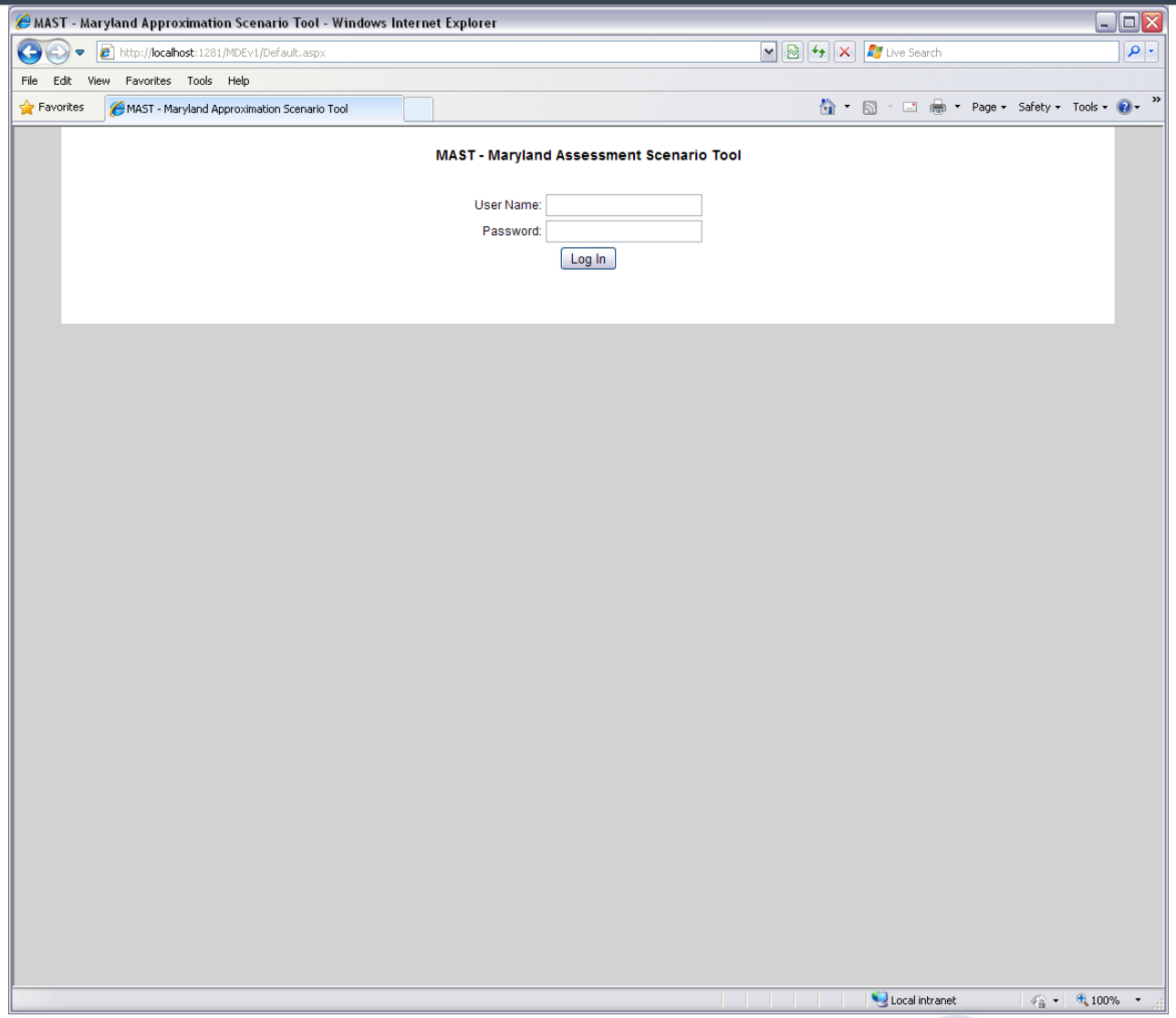




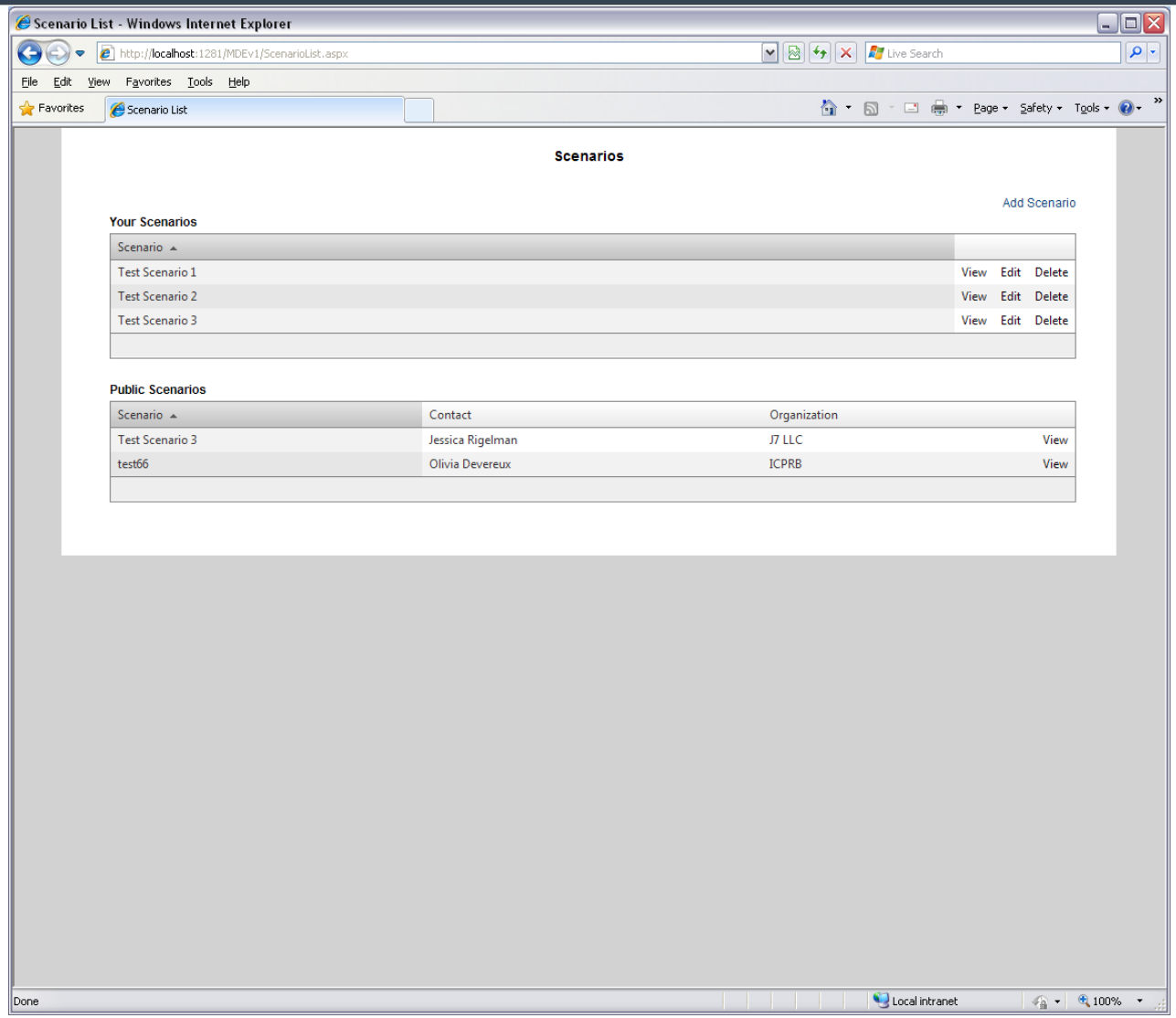
Need for Consistent Process



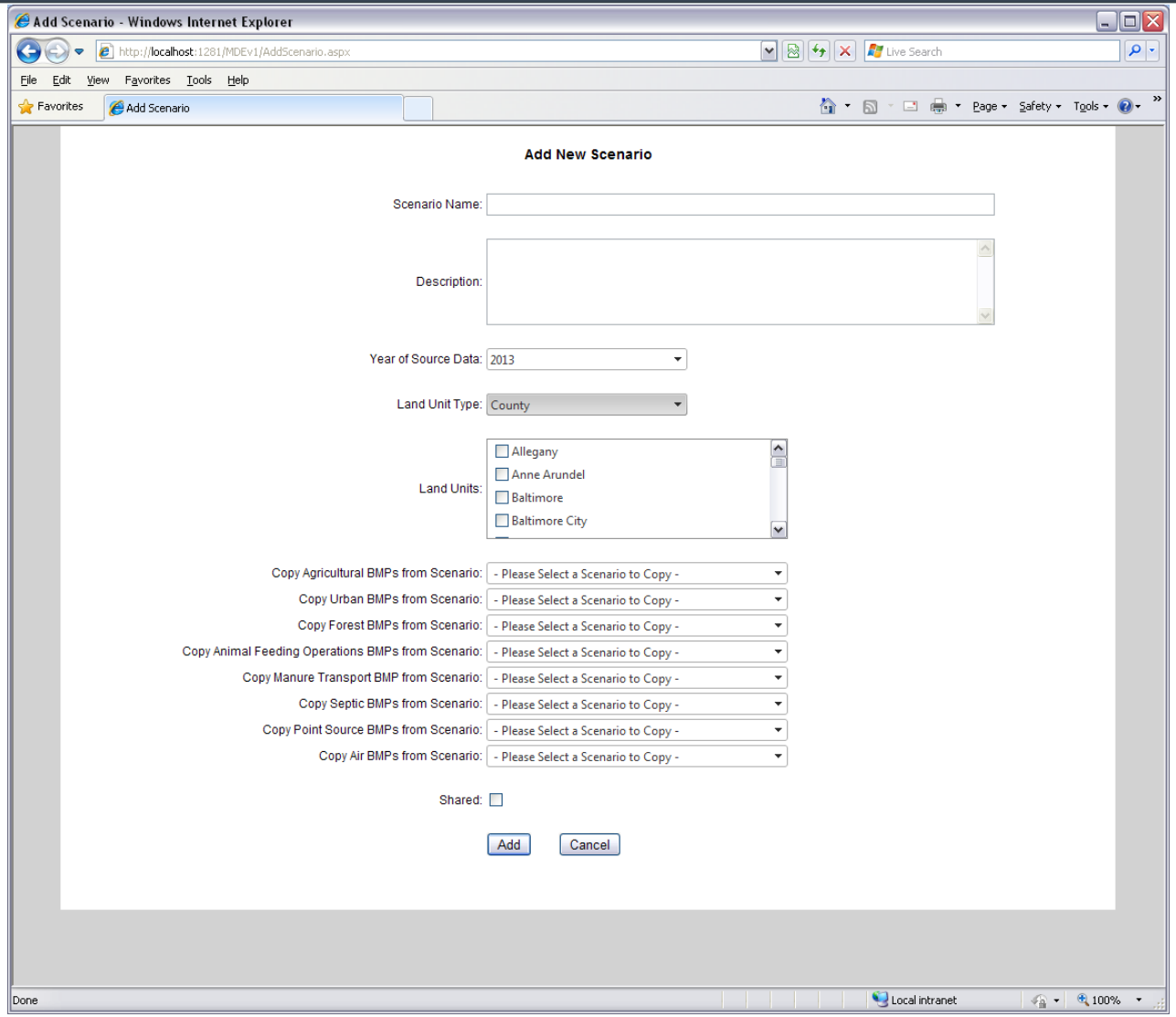
Screenshots - Login



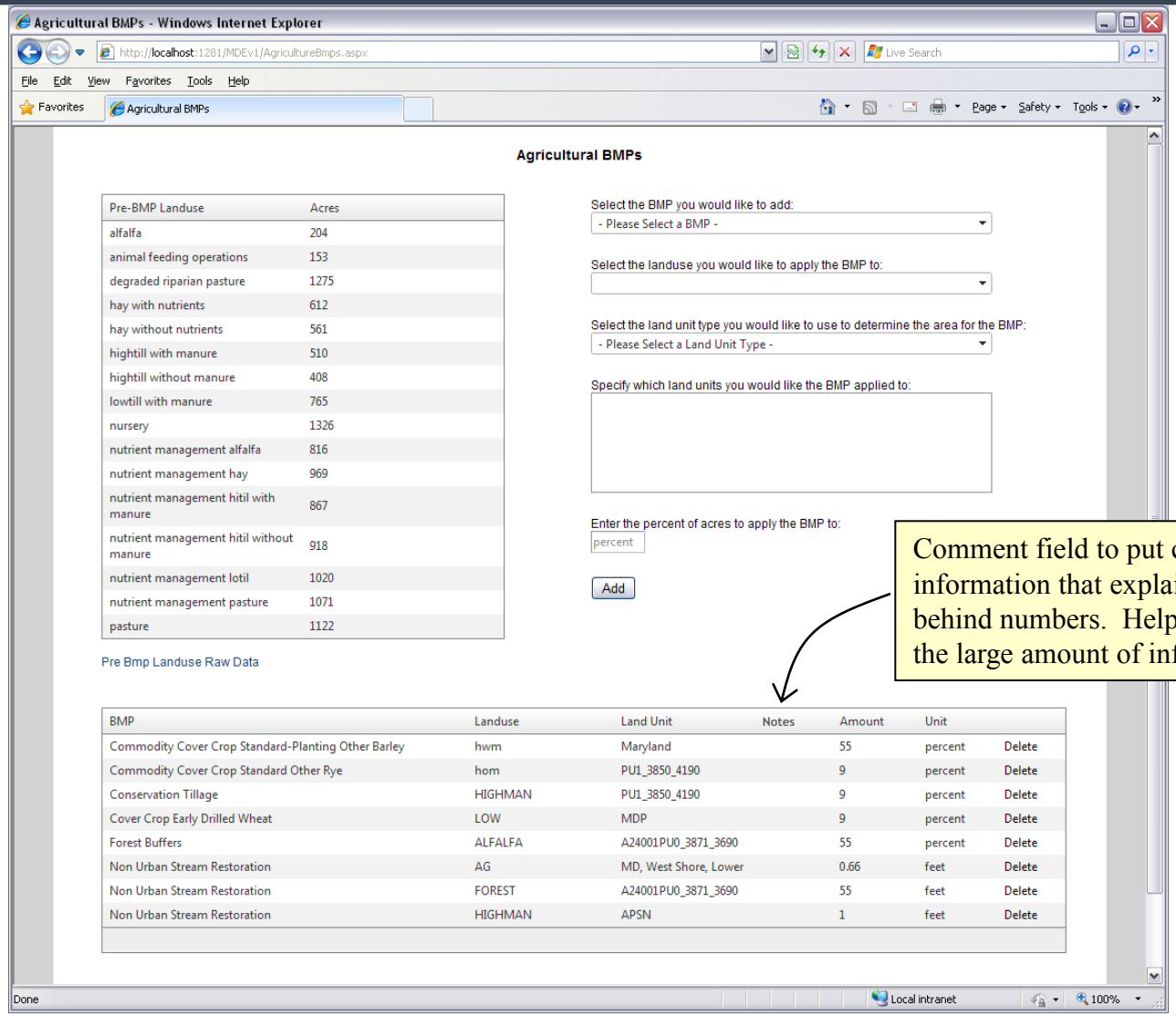
Screenshots - Scenarios



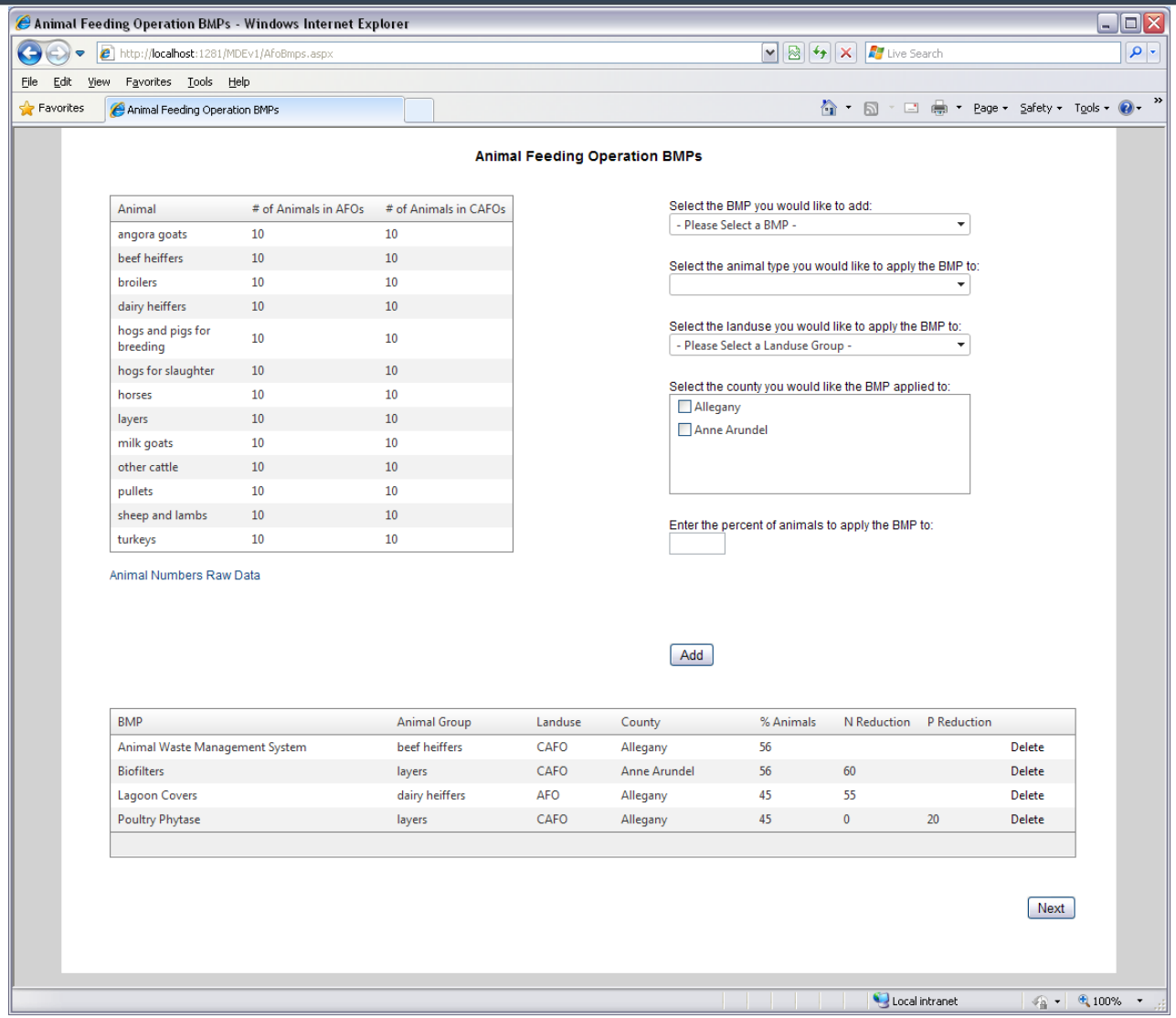
Screenshots – New Scenario



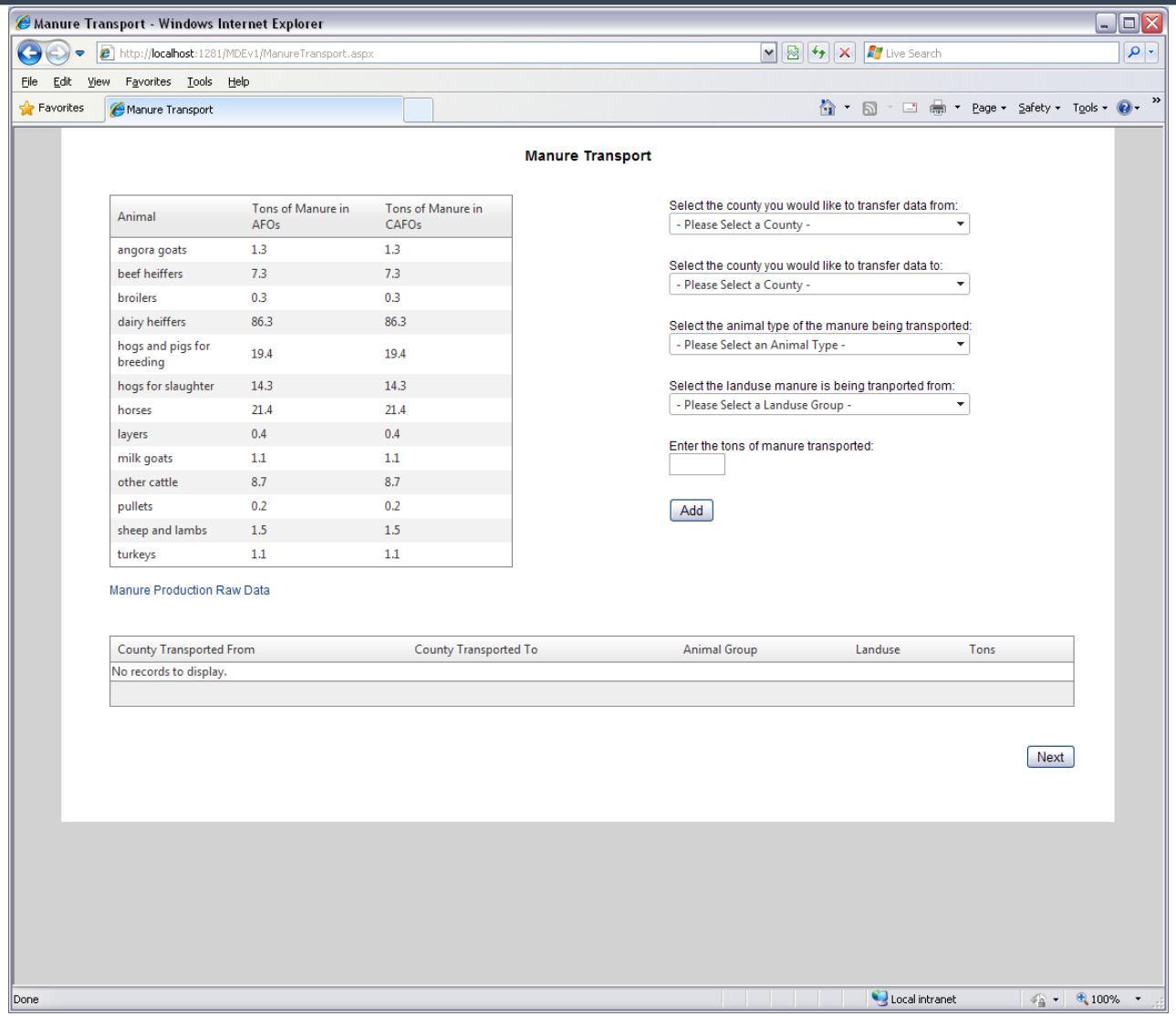
Screenshots – Agriculture



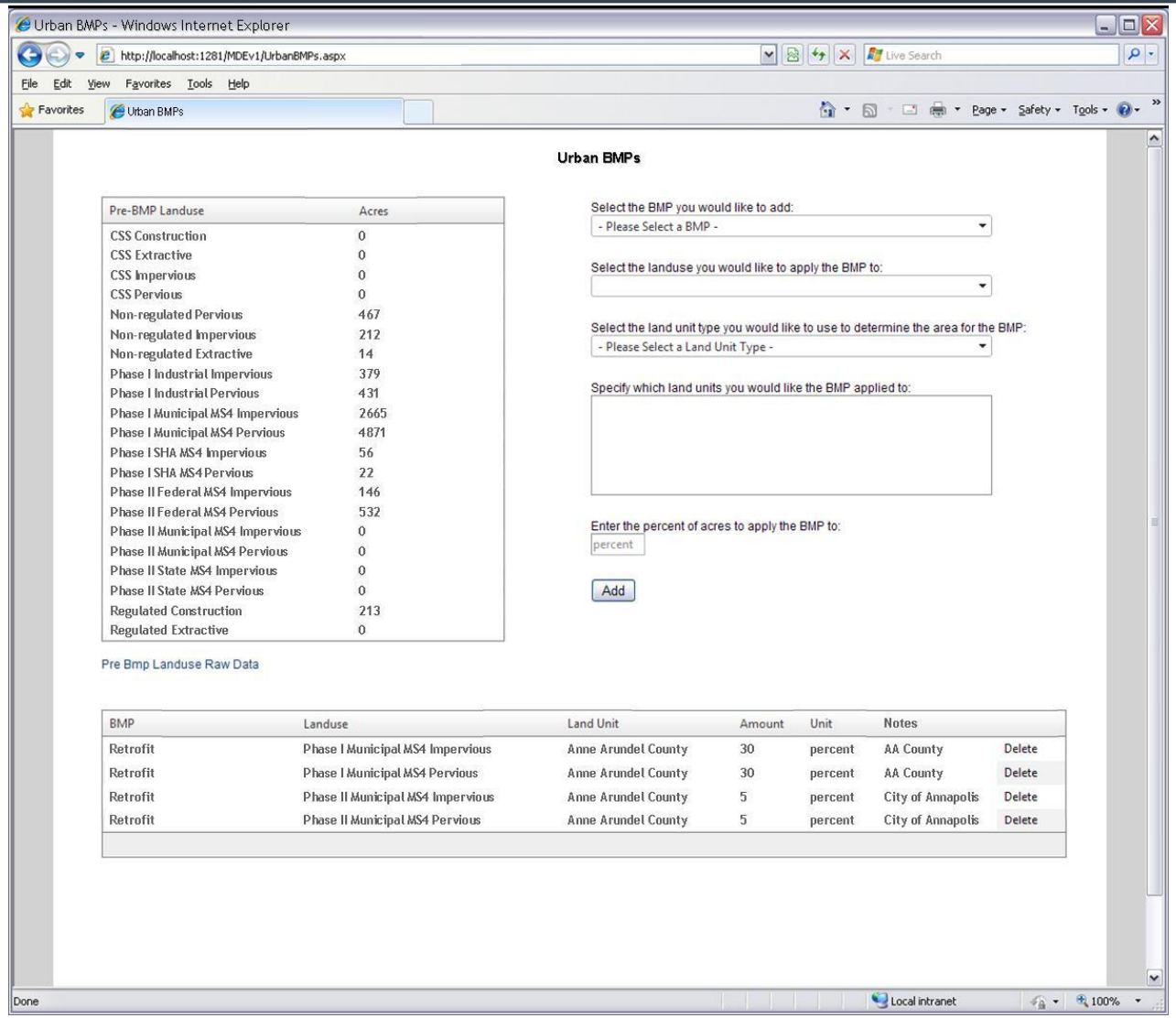
Screenshots – Agriculture



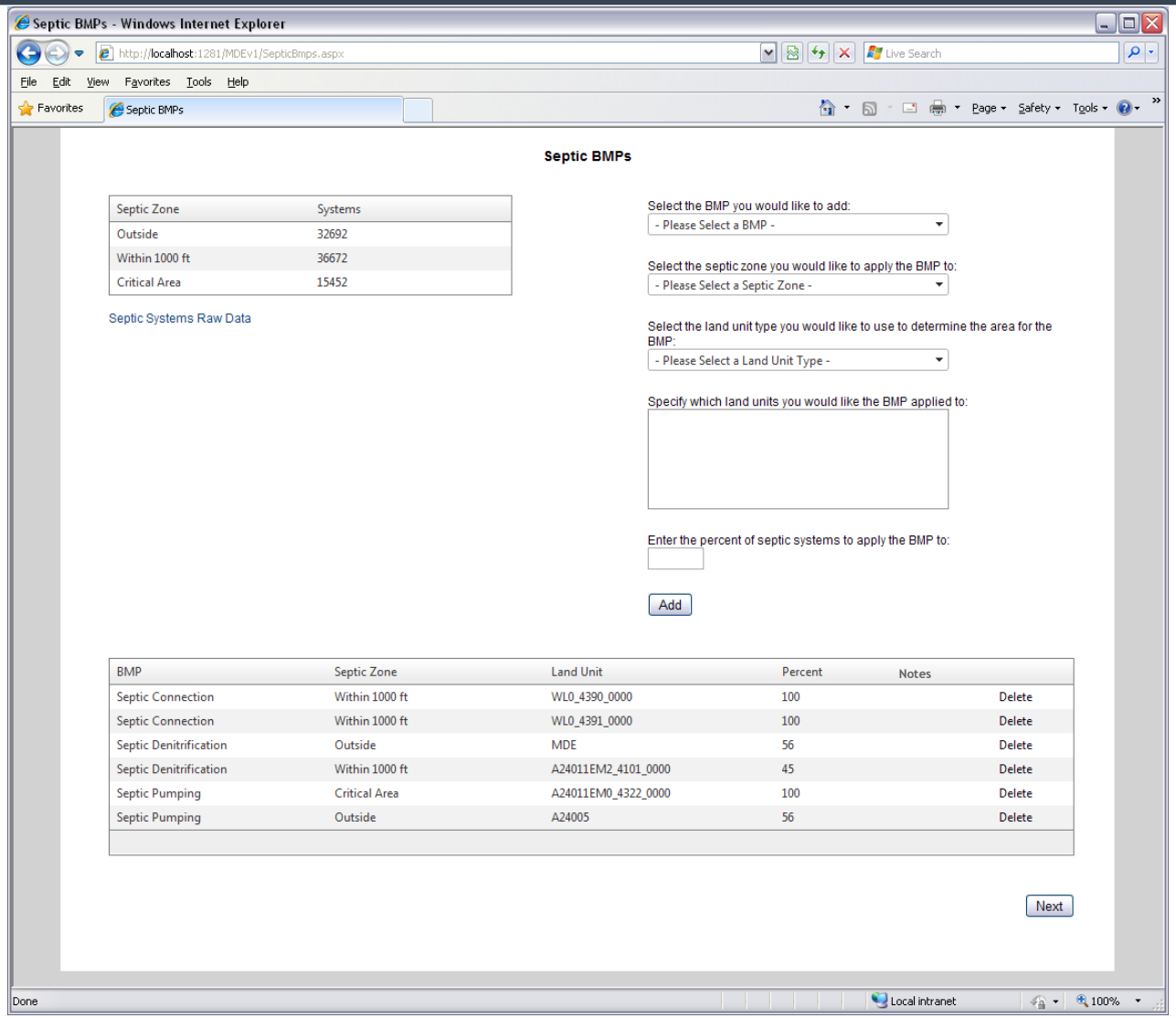
Screenshots – Agriculture



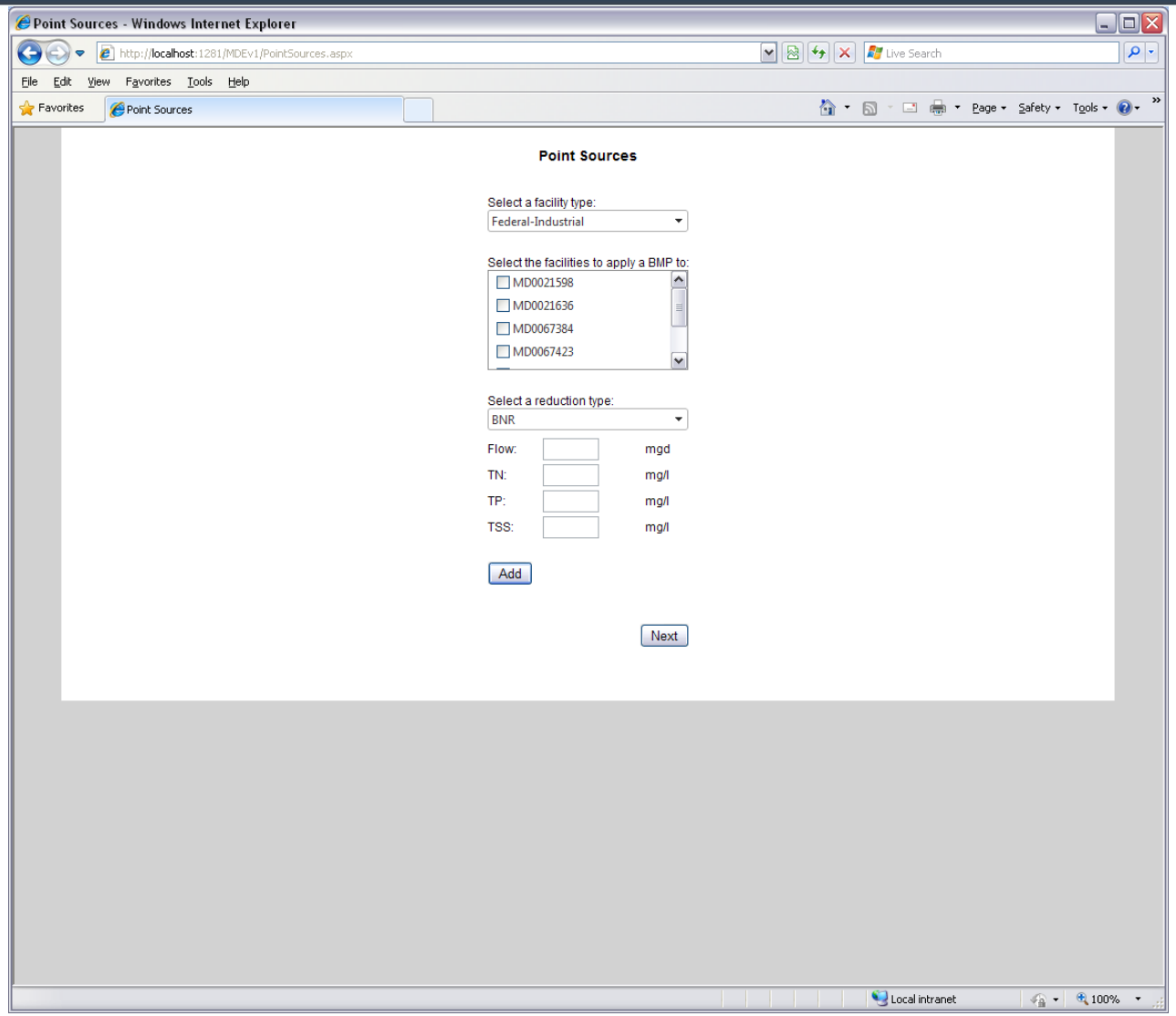
Screenshots – Urban Runoff



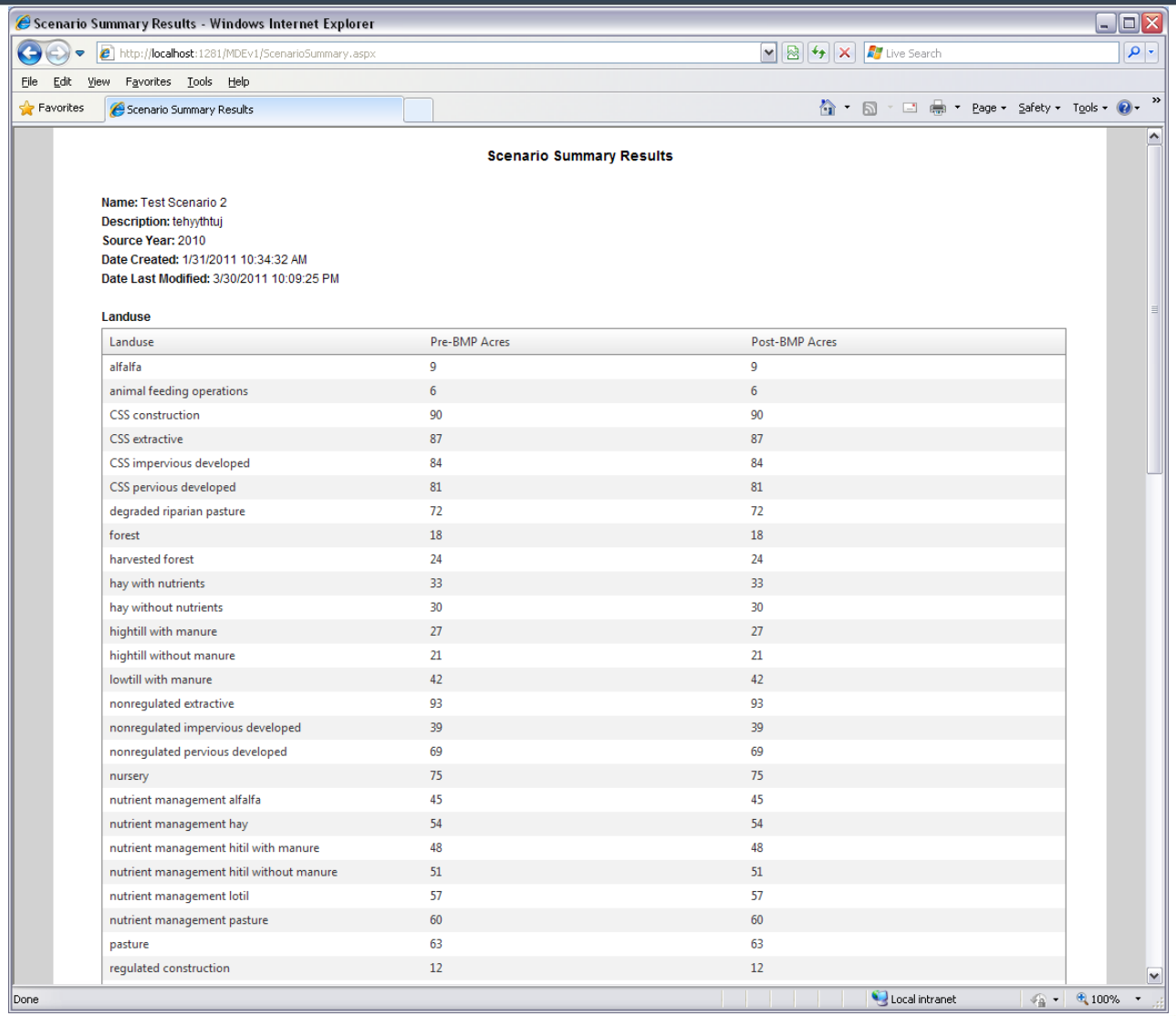
Screenshots – Septic



Screenshots – WWTP



Screenshots – Summary



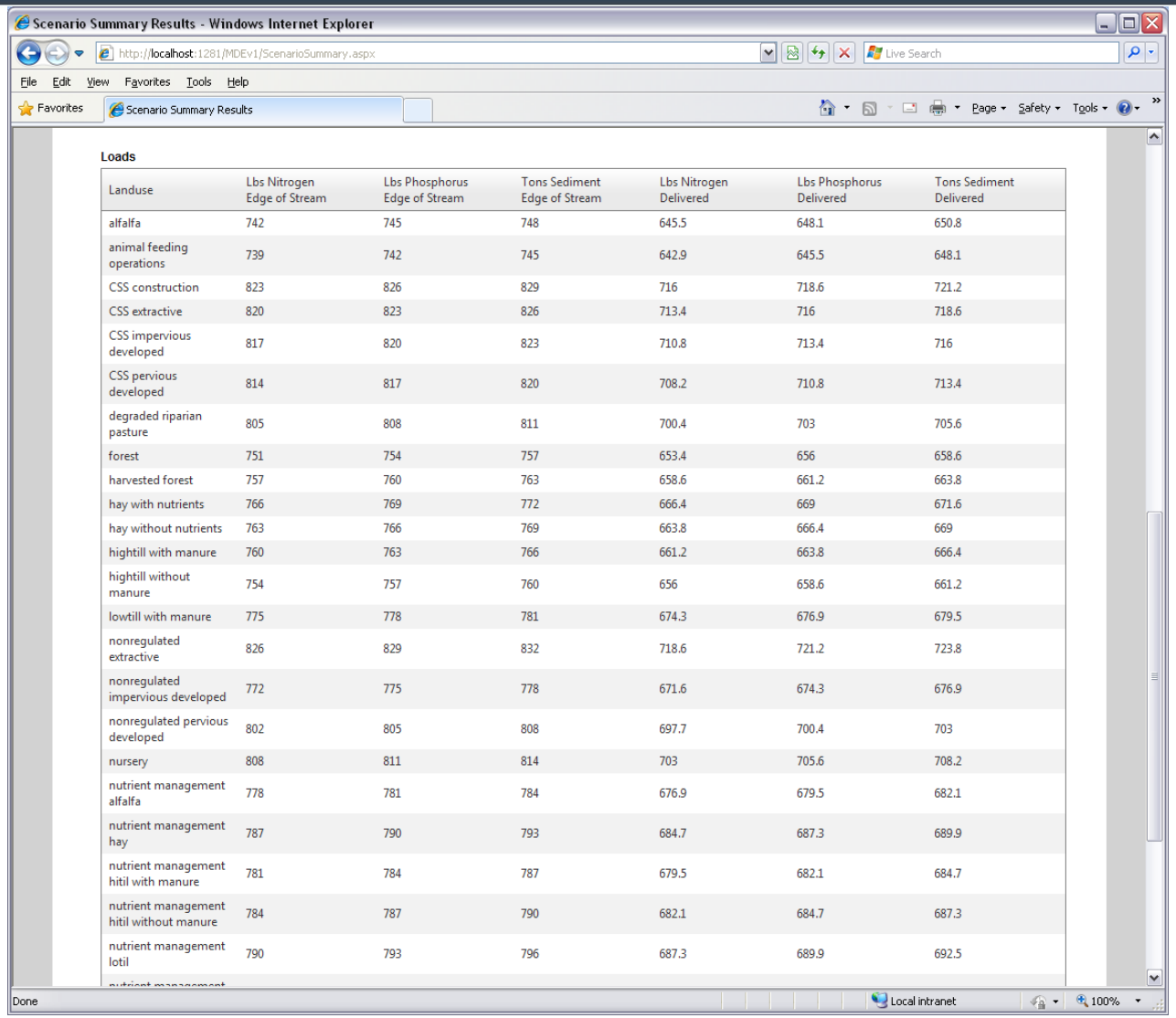
Scenario Summary Results

Name: Test Scenario 2
Description: tehyythtuj
Source Year: 2010
Date Created: 1/31/2011 10:34:32 AM
Date Last Modified: 3/30/2011 10:09:25 PM

Landuse

Landuse	Pre-BMP Acres	Post-BMP Acres
alfalfa	9	9
animal feeding operations	6	6
CSS construction	90	90
CSS extractive	87	87
CSS impervious developed	84	84
CSS pervious developed	81	81
degraded riparian pasture	72	72
forest	18	18
harvested forest	24	24
hay with nutrients	33	33
hay without nutrients	30	30
hightill with manure	27	27
hightill without manure	21	21
lowtill with manure	42	42
nonregulated extractive	93	93
nonregulated impervious developed	39	39
nonregulated pervious developed	69	69
nursery	75	75
nutrient management alfalfa	45	45
nutrient management hay	54	54
nutrient management hitil with manure	48	48
nutrient management hitil without manure	51	51
nutrient management lotil	57	57
nutrient management pasture	60	60
pasture	63	63
regulated construction	12	12

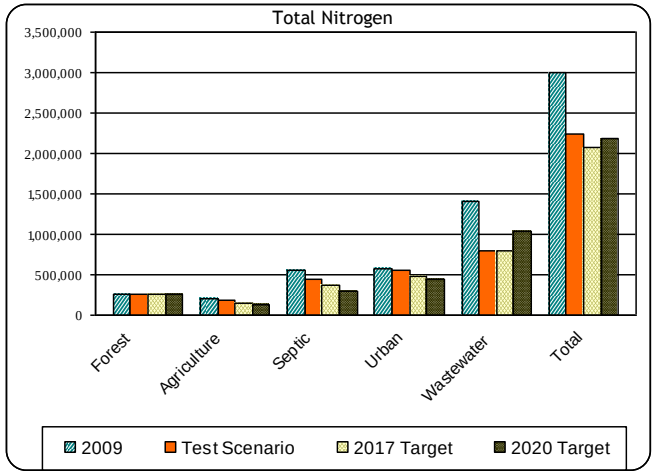
Screenshots – Results

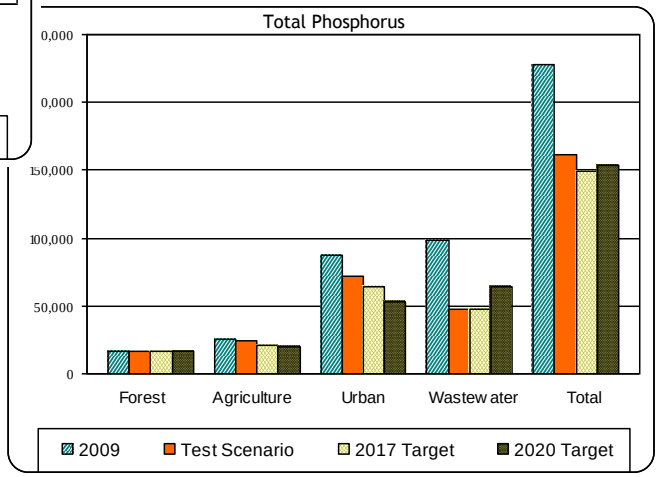


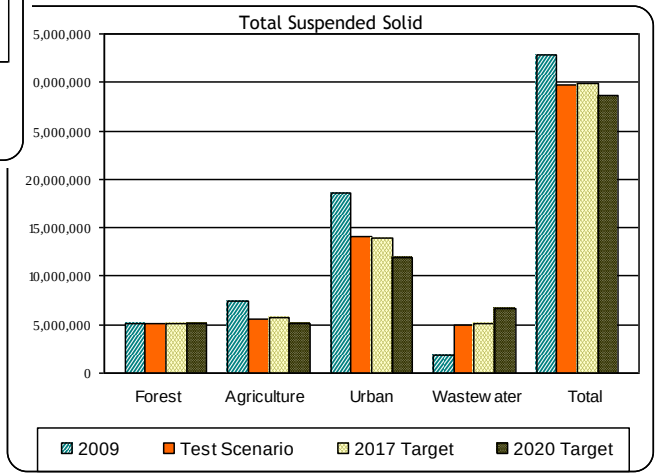
Loads

Landuse	Lbs Nitrogen Edge of Stream	Lbs Phosphorus Edge of Stream	Tons Sediment Edge of Stream	Lbs Nitrogen Delivered	Lbs Phosphorus Delivered	Tons Sediment Delivered
alfalfa	742	745	748	645.5	648.1	650.8
animal feeding operations	739	742	745	642.9	645.5	648.1
CSS construction	823	826	829	716	718.6	721.2
CSS extractive	820	823	826	713.4	716	718.6
CSS impervious developed	817	820	823	710.8	713.4	716
CSS pervious developed	814	817	820	708.2	710.8	713.4
degraded riparian pasture	805	808	811	700.4	703	705.6
forest	751	754	757	653.4	656	658.6
harvested forest	757	760	763	658.6	661.2	663.8
hay with nutrients	766	769	772	666.4	669	671.6
hay without nutrients	763	766	769	663.8	666.4	669
hightill with manure	760	763	766	661.2	663.8	666.4
hightill without manure	754	757	760	656	658.6	661.2
lowtill with manure	775	778	781	674.3	676.9	679.5
nonregulated extractive	826	829	832	718.6	721.2	723.8
nonregulated impervious developed	772	775	778	671.6	674.3	676.9
nonregulated pervious developed	802	805	808	697.7	700.4	703
nursery	808	811	814	703	705.6	708.2
nutrient management alfalfa	778	781	784	676.9	679.5	682.1
nutrient management hay	787	790	793	684.7	687.3	689.9
nutrient management hitil with manure	781	784	787	679.5	682.1	684.7
nutrient management hitil without manure	784	787	790	682.1	684.7	687.3
nutrient management lotil	790	793	796	687.3	689.9	692.5

Diagnostic Plots







MAST Training Sessions

- Four sessions to be held at MDE computer room in July
- Six counties per session
  - Need to assign technical liaisons to county (one WIP team member and one state)
  - State technical liaison will work with multiple counties
- Technical support to be provided after July through completion of WIP

Schedule

Description	Date
MD provides Phase I Loads to teams	April 7, 2011
MD provides Phase 5.3.2 input to teams	May 15, 2011
EPA Release 5.3.2 w/ scenarios	June 30, 2011
MAST Release	June 30, 2011
MAST training sessions	July 2011
Revised State allocation from EPA	July 15, 2011
Revised County targets from MDE	August 15, 2011
Draft WIP from County	November 1, 2011
Preliminary Milestones	November 1, 211
Draft WIP to EPA	December 1, 2011
Final Milestones	January 3, 2012
Public comment begins (30 days) - Tentative	January 15, 2012
EPA provides comments	January 31, 2012
Public comment ends	February 15, 2012
Final WIP to EPA	March 30, 2012