

**New York City**  
**Department of Environmental Protection**

Watershed Forestry Program Evaluation Report  
Five-Year Implementation Status of Forest Management Plans

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Filtration Avoidance Determination*



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# Watershed Forestry Program Evaluation Report

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## 1. Introduction

The 2007 FAD requires DEP to annually evaluate the implementation status of five-year old forest management plans that are adopted by landowners who voluntarily participate in the Watershed Agricultural Council (WAC) Forestry Program. The evaluation includes written surveys mailed to all landowners following completion of their plans (Year-1 Surveys); written surveys mailed annually to those landowners having five-year old plans (Year-5 Surveys); and a comprehensive assessment of landowner participation in various programs.

This report evaluates the five-year implementation status of 84 WAC forest management plans that were completed during 2006 and reached their five-year status in 2011. In total over the past nine years, DEP and WAC have evaluated 621 plans completed during 1998-2006.

## 2. Evaluation Overview

The 84 WAC plans completed during 2006 cover approximately 14,463 total acres, of which an estimated 11,449 acres are forestland. Eight of these plans (10%) were completed previously but were updated in 2006 to meet newer WAC plan specifications, whereas the remaining 76 WAC plans are considered “original” first-time enrollments in 2006. Fifty-two of the 84 WAC plans (60%) contained riparian plans covering 1,339 riparian acres

Nineteen different foresters wrote the 84 WAC plans in 2006, with the top two most prolific foresters writing 23 plans (27%) and 10 plans (12%) respectively. By comparison, 36 foresters wrote all 621 WAC plans completed during 1998-2006, with the top five most prolific foresters writing nearly two-thirds (61%) of all these plans.

The average completion time for the 84 WAC plans completed in 2006 was 8.7 months, which is comparable with the cumulative average completion time of 8.2 months for all 621 WAC plans completed during 1998-2006.

Fifty-three of the WAC plans completed in 2006 were on Delaware County properties (63%). Eight plans each were in Greene, Ulster, and Westchester Counties (10% each), four were in Putnam County (5%), two were in Schoharie County (2%), and one plan was in Sullivan County (1%). On a cumulative basis, the geographic distribution of all 621 plans completed during 1998-2006 represents the following counties: Delaware (60%), Greene (16%), Ulster (11%), Schoharie (5%), Sullivan (3%), Westchester (4%), Putnam (3%) and Dutchess (1%). Twelve of these plans spanned two counties which is why the total exceeds 100%.

Seventy-eight WAC plans (93%) contained some type of silvicultural prescription in their 15-year work schedules, and these are summarized in Table 1. Consistent with prior year evaluations, commercial thinning, timber stand improvement (TSI), and pre-commercial thinning represent the most common prescriptions, with foresters continuing to use a broad range of terminology to describe similar prescriptions (i.e., pre-commercial thinning and non-commercial thinning are essentially the same silvicultural treatment as TSI).

Table 1. Silvicultural prescriptions in 84 WAC plans completed in 2006.

	#	%
Plans recommending silvicultural prescriptions:	<u>78</u>	<u>93%</u>
• Commercial Thinning:	41	53%
• Timber Stand Improvement (TSI):	31	40%
• Pre-commercial Thinning:	29	37%
• Crop Tree Release:	12	15%
• Cull Removal:	8	10%
• Harvest:	6	8%
• Thinning / Non-commercial Thinning / Group Selection (each):	5	6%
• Commercial Harvest / Selective Harvest / Firewood Thinning / Group Selection (each):	4	5%
• Salvage:	2	3%
• Light Harvest:	1	1%

Table 2 summarizes the major water quality issues and recommendations found in the 84 WAC plans completed in 2006. These results are generally consistent with the cumulative results for the 621 WAC plans completed during 1998-2006.

Table 2. Water quality issues and recommendations in 84 WAC plans completed in 2006.

	#	%
Plans with streams located on property:	<u>65</u>	<u>77%</u>
• Existing stream crossing identified:	15	23%
• New stream crossing recommended:	34	52%
• No stream crossing needed:	31	48%
Plans with existing stream crossing identified:	<u>15</u>	<u>23%</u>
• Ford	7	47%
• Culvert	5	33%
• Bridge	3	20%
Plans with new stream crossing recommended:	<u>34</u>	<u>52%</u>
• New York State DEC permit	22	65%
• Portable bridge	18	53%
• Culvert	14	41%
• Ford	8	24%
• Corduroy	3	9%
Plans with existing forest roads located on property:	<u>70</u>	<u>83%</u>
• Road has erosion problems or needs BMPs installed:	22	31%
• Road exists in good condition or problems not described:	48	69%
Plans recommending new roads to be installed during future harvest:	<u>40</u>	<u>48%</u>
• Property does not currently have an existing forest road:	10	25%
• Property already contains an existing forest road:	30	75%

### 3. Year-1 Survey Results

Thirty-seven landowners returned a Year-1 Survey upon the completion of their WAC plans in 2006, representing a 44% response rate; this is consistent with the 49% cumulative response rate for the 621 total WAC plans completed during 1998-2006. Table 3 summarizes the positive responses (landowner responded “yes”) for the 37 Year-1 Survey respondents. It is worth noting that these results are virtually identical to the cumulative Year-1 Survey results from all landowners who completed WAC forest management plans during 1998-2006.

Table 3. Positive landowner responses to selected questions in 37 Year-1 Surveys.

	#	%
Overall, were you satisfied with the forest management planning process?	35	95%
Overall, were you satisfied with the forester who prepared your plan?	36	97%
Do you feel you had adequate input into your plan’s preparation?	37	100%
Will you retain the services of a forester for future activities on your land?	<u>34</u>	<u>92%</u>
• Timber Stand Improvement (TSI):	27	79%
• Commercial Timber Sale:	26	76%
• 5-Year Plan Update:	23	68%
• Wildlife Enhancements:	16	47%
• Roads/Trails Improvement:	14	41%
• Property Line Maintenance:	12	35%
• Tree Planting:	9	26%
Do you feel that your plan will improve the stewardship of your property?	37	100%
Does your plan recommend forestry practices in the next 5 years?	<u>28</u>	<u>76%</u>
• Do you intend to complete these practices?	28	100%
Does your plan recommend watershed protection practices in the next 5 years?	<u>25</u>	<u>68%</u>
• Do you intend to complete these practices?	23	92%
Which of the following recommendations are you more likely to complete on your own without additional resources or funding assistance?		
• Property Line Maintenance:	23	62%
• Wildlife Enhancement:	18	49%
• Timber Stand Improvement (TSI):	18	49%
• Commercial Timber Harvest:	14	38%
• Roads/Trails Improvement:	9	24%
• Tree Planting / Erosion Control Devices (each):	8	22%
• Riparian Area Management:	7	19%
• 5-Year Plan Update:	6	16%
• Forestry Stream Crossings:	2	5%

Would you prefer to use a trained/certified logger for a future timber sale?	35	95%
Would you be interested in participating in other types of forestry programs?	<u>36</u>	<u>97%</u>
• Roads/Trails Improvements:	20	56%
• Educational Workshops:	18	50%
• Conservation Easements:	15	42%

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#### 4. Year-5 Survey Results

Forty landowners returned their Year-5 Surveys in 2011, representing a 47% response rate. By comparison, the cumulative response rate for all 621 landowners who completed a WAC plan during 1998-2006 is 49% (305 returned surveys). For the 40 landowners who returned a Year-5 Survey in 2011, 36 landowners still own their property (90%) and four landowners (10%) have sold their land or passed away. Table 4 summarizes the positive responses (landowner answered “yes”) for the 36 respondents who still own their land. The Year-5 Survey results are generally consistent with the cumulative results from prior years.

Table 4. Summary of positive landowner responses to selected questions in 36 Year-5 Surveys.

	<u>#</u>	<u>%</u>
Overall, have you been satisfied with your plan during the past five years?	24	67%
Have you consulted your plan since it was completed five years ago?	27	75%
Do you feel that owning a plan has improved your stewardship of your land?	31	86%
Have you enrolled your plan in the NYS Forest Tax Law Program?	17	47%
Have you retained the services of your forester since completing your plan?	<u>21</u>	<u>58%</u>
• Five-Year Plan Update:	15	71%
• Timber Stand Improvement (TSI):	13	62%
• Commercial Timber Sale / Wildlife Enhancement (each):	8	38%
• Property Line Maintenance	7	33%
• Roads/Trails Improvement:	6	29%
• Tree Planting:	2	10%
Does your plan recommend any forestry activities during the past five years?	<u>25</u>	<u>69%</u>
• If YES, did you complete these recommendations?	17	68%
Does your plan recommend any watershed protection practices during the past five years?	<u>11</u>	<u>31%</u>
• If YES, did you complete these recommendations?	10	90%
Are there recommendations you were planning to complete but have not yet?	<u>16</u>	<u>44%</u>
• Timber Stand Improvement (TSI):	12	75%
• Five-Year Plan Update:	8	50%

• Roads/Trails Improvement / Property Line Maintenance (each):	6	38%
• Commercial Timber Harvest:	4	25%
• Wildlife Enhancement:	2	13%
• Stream Crossings / Tree Planting / Erosion Control Devices (each):	1	6%
Have you conducted a timber sale during the past five years?	<u>10</u>	<u>28%</u>
• If YES, did you hire a professional forester?	9	90%
• If YES, did you hire a “trained” or “certified” logger?	8	80%
Are you planning to conduct a timber sale during the next five years?	<u>13</u>	<u>36%</u>
• If YES, are you planning to hire a professional forester?	10	77%
• If YES, are you planning to hire a “trained” or “certified” logger?	9	69%
Have you recommended the Forestry Program to others during the past 5 years?	21	58%
Have you participated in forestry workshops or other educational events during the past 5 years?	17	47%

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Finally, the Year-5 Survey asked landowners to numerically rank their reasons for owning a WAC forest management plan. Consistent with previous survey results, commercial timber production continues to rank as one of the lowest reasons for owning a forest management plan, whereas non-timber values such as wildlife, hunting, hiking, aesthetics, and recreation continue to rank as more important reasons. It is worth noting that these results for watershed landowners are wholly consistent with state and national forest trends.

## 5. Landowner Participation in Other Programs

Watershed landowners who adopt WAC forest management plans may choose to participate in several voluntary programs that promote good forest stewardship. These include the WAC Management Assistance Program (MAP), WAC Forestry BMP Programs, NYS Forest Tax Law Program, WAC Easement Program, DEP Land Acquisition Program, and others. The following results represent the 84 landowners who completed WAC plans during 2006:

- Sixty-four landowners (76%) were eligible to participate in the NYS Forest Tax Law Program by owning at least 50 acres of forest land. Eighteen of these landowners (28%) enrolled all or part of their properties in the Forest Tax Law prior to their participation in the WAC Forestry Program, whereas 14 landowners (22%) enrolled in the Forest Tax Law subsequent to completing a WAC plan. On a cumulative basis, approximately 71% of all landowners who completed WAC forest management plans during 1998-2006 were eligible for the NYS Forest Tax Law Program, of which approximately 44% actually enrolled their properties in this program.
- Nine landowners (11%) have updated their five-year old WAC plans since 2006 while three landowners (4%) are currently in the process of updating their plans. Eight of the WAC plans evaluated this year represented updated WAC plans from before 2006.

- Nineteen landowners (23%) have been approved to implement 25 road BMP projects through the WAC Forestry Program. Eight of these projects were road remediation projects while 17 projects represented newly installed timber harvest roads. All but one of these projects have been completed to date, with the final project pending.
- Thirty landowners (36%) have been approved to implement 66 Management Assistance Program (MAP) projects through the WAC Forestry Program. These 66 projects include: 12 wildlife improvement projects; 40 timber stand improvement (TSI) projects; eight tree planting projects; five invasive species control projects; and one riparian improvement projects. Fifty-four of these projects have been completed (82%), ten projects have been cancelled by the landowner (15%), and two projects are pending completion (3%).
- One landowner (1%) sold his land to the City (51 acres) in fee simple through DEP's Land Acquisition Program. Eight landowners (10%) entered into a DEP conservation easement (1,178 acres) and three landowners (4%) are currently in the DEP easement pipeline (1,366 acres).
- Four landowners (5%) entered into a WAC conservation easement (1,268 acres) while another two landowners (2%) are currently in the WAC easement pipeline (202 acres).

## **6. Summary**

Forest management planning and implementation are integral to the Watershed Forestry Program's efforts to encourage and support long-term forest health and stewardship. This report evaluated 84 WAC forest management plans completed during 2006. Next year, DEP and WAC plan to evaluate another 84 plans that were completed in 2007 and turned five years old in 2012.