

New York City Department of Environmental Protection

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

January 31, 2013

*Prepared in accordance with Section 4.5 of the July 2007
Filtration Avoidance Determination*



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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 86 WAC forest management plans that were completed during 2007 and reached their five-year status in 2012. In total over the past nine years, DEP and WAC have evaluated 707 plans completed during 1998-2007.

2. Evaluation Overview

The 86 WAC plans completed during 2007 cover approximately 15,853 total acres, of which an estimated 12,185 acres are forestland. Six of these plans (7%) were completed previously but were updated in 2007 to meet newer WAC plan specifications, whereas the remaining 80 WAC plans are considered “original” first-time enrollments. Sixty-four of the 86 WAC plans (74%) contained riparian plans covering 1,418 riparian acres.

Twenty-one different foresters wrote the 86 WAC plans in 2007, with the top four most prolific foresters writing 45 plans (52% of total). By comparison, 39 foresters wrote all 707 WAC plans completed during 1998-2007, with the most prolific forester writing 23% of all these plans, more than double the amount of plans written by any other forester.

The average completion time for the 86 WAC plans completed in 2007 was about 10 months, which is slightly longer than the cumulative average completion time of 8.5 months for all 707 WAC plans completed during 1998-2007.

Fifty-five percent of the WAC plans completed in 2007 were on Delaware County properties, 19% were in Greene, 10% were in Ulster, 6% each were in Putnam and Westchester, 3% were in Schoharie, and one plan each was in Dutchess and Sullivan Counties (1%). One plan spans multiple counties. On a cumulative basis, the geographic distribution of all 707 plans completed during 1998-2007 represents the following counties: Delaware (59%), Greene (16%), Ulster (11%), Schoharie (5%), Westchester (4%), Putnam and Sullivan (3% each), and Dutchess (1%). A total of 13 plans span multiple counties.

Eighty-four percent of the WAC plans completed during 2007 contain some type of silvicultural prescription in their 15-year work schedules. Consistent with prior year evaluations, commercial thinning, timber stand improvement (TSI), and pre-commercial thinning represent the most common prescriptions listed by foresters. At least a dozen other prescriptions were identified, but due to the high degree of variability in silvicultural terminology used by foresters, it is no longer feasible to track and document every single prescription as in prior years.

Table 1 summarizes the water quality issues and recommendations found in the 86 WAC plans completed during 2007 as compared to the 707 total WAC plans completed during 1998-2007. Overall, the 2007 survey results appear consistent with the 1998-2007 results, with the possible exception of portable bridges being recommended in higher numbers during 2007 (81%) versus 1998-2007 (53%). One possible explanation is that WAC expanded its portable bridge program many times between 1998 and 2007 while also conducting two dozen forester training workshops, so it is possible that more foresters are recommending portable bridges because they are becoming more familiar with them and they know that WAC offers numerous portable bridge options to landowners and loggers. This will be monitored in future evaluations to determine whether the 2007 results were simply an outlier or whether a broader trend is emerging.

Table 1. Water quality issues and recommendations found in 86 WAC plans completed during 2007 in comparison to 707 total WAC plans completed during 1998-2007.

	2007	Total
Plans with streams located on property	76%	76%
Plans with streams and existing stream crossing identified	<u>22%</u>	<u>33%</u>
• Ford	36%	58%
• Culvert	36%	27%
• Bridge	36%	24%
Plans with streams and new stream crossing recommended	<u>42%</u>	<u>60%</u>
• New York State DEC permit	52%	62%
• Portable bridge	81%	53%
• Culvert	19%	25%
• Ford	26%	21%
• Corduroy	0%	8%
Plans with existing forest roads located on property	<u>88%</u>	<u>87%</u>
• Road has erosion problems or needs BMPs installed	38%	36%
• Road exists in good condition or problems not described	62%	64%
Plans recommending new roads to be installed during future harvest	<u>41%</u>	<u>52%</u>
• Property does not currently have an existing forest road	14%	20%
• Property already contains an existing forest road	86%	80%

3. Year-1 Survey Results

Nineteen landowners returned a Year-1 Survey upon completion of their WAC plans in 2007, representing a 22% response rate; this number is considerably lower than the 46% cumulative response rate for the 707 total WAC plans completed during 1998-2007. It is unclear why the 2007 response rate was so low but it is likely indicative of what to expect in future years based on broader survey trends. For example, according to an article published by Pew Research in May 2012, “The response rate of a typical phone survey was 36% in 1997 and is just 9% today. The general decline in response rates is evident across nearly all types of surveys, in the United States and abroad” (Pew Research 2012). An online search of typical/average survey

response rates reveals a wide variability. Multiple sources indicate that response rates for “general public” fall between 1-20%, while response rates for “customers or members” fall between 5-40%. Since WAC’s results fall within these ranges, DEP is not particularly concerned about the 22% response rate but will monitor this moving forward. Table 2 summarizes the positive responses (landowner responded “yes”) for the 19 Year-1 Survey respondents.

Table 2. Positive responses to selected questions in 19 Year-1 Surveys completed in 2007.

Overall, were you satisfied with the forest management planning process?	95%
Overall, were you satisfied with the forester who prepared your plan?	95%
Do you feel you had adequate input into your plan’s preparation?	95%
Will you retain the services of a forester for future activities on your land?	<u>95%</u>
• Timber Stand Improvement (TSI)	78%
• Commercial Timber Sale	61%
• 5-Year Plan Update / Wildlife Enhancements (each)	56%
• Roads/Trails Improvement	44%
• Property Line Maintenance	50%
• Tree Planting	28%
Do you feel that your plan will improve the stewardship of your property?	89%
Does your plan recommend forestry practices in the next 5 years?	<u>68%</u>
• If YES, do you intend to complete these practices?	85%
Does your plan recommend watershed protection practices in the next 5 years?	<u>53%</u>
• If YES, do you intend to complete these practices?	100%
Which of the following recommendations are you likely to complete on your own?	
• Timber Stand Improvement (TSI)	53%
• Property Line Maintenance, Wildlife Enhancement, Commercial Timber Harvest, Roads/Trails Improvement (each)	37%
• 5-Year Plan Update	32%
• Tree Planting / Erosion Control Devices (each)	26%
• Riparian Area Management	11%
• Forestry Stream Crossings	16%
Would you prefer to use a trained/certified logger for a future timber sale?	100%
Would you be interested in participating in other types of forestry programs?	<u>79%</u>
• Roads/Trails Improvements	60%
• Educational Workshops	73%
• Conservation Easements	40%

4. Year-5 Survey Results

Forty-six landowners returned their Year-5 Surveys in 2012, representing a 53% response rate which exceeds the 50% cumulative response rate for all 707 landowners who completed WAC plans during 1998-2007. In the past, FAD regulators have asked why the Year-5 Survey response rates are so low and DEP has explained that WAC's results are wholly consistent with broader national trends. In response to last year's report, the FAD regulators noted "the response rate was quite low" (47%) and they recommended that DEP "develop and implement a strategy to increase landowners' participation during future assessments." DEP agreed to work with WAC on this during 2012, which resulted in WAC initiating the survey a full month earlier than usual, adding an online survey option, conducting four separate rounds of monthly mailings, and following up with in-person phone calls.

In August, landowners were asked to complete the 5-Year Survey online, which yielded five responses. In September the written survey was mailed to all non-respondents, yielding 19 responses. The survey was then mailed again to all non-respondents in October (15 responses), November (six responses), and December (no responses). Follow-up phone calls were made in December, yielding one response. Seven landowners requested they be taken off the WAC mailing list, which poses a concern for a voluntary program if participants become annoyed with receiving unsolicited materials and decline to participate in other programs as a result. This potentially negative ripple effect on other aspects of the WAC Forestry Program is one reason why DEP feels strongly that current survey efforts are sufficient for the purpose of this evaluation. In addition to maintaining customer relations, there is a trade-off with regards to expending additional time and resources to achieve only slightly higher survey response rates. According to Pew Research, "It has become increasingly difficult to contact potential respondents and to persuade them to participate. At the same time, greater effort and expense are required to achieve even the diminished response rates of today" (Pew Research 2012).

For the 46 landowners who returned a Year-5 Survey in 2012, 43 landowners (93%) still own their property and three landowners (7%) have sold their land or passed away. Table 3 summarizes the positive responses (landowner answered "yes") for the 46 respondents who still own their land in comparison to 707 total WAC plans completed during 1998-2007.

Table 3. Summary of positive responses to selected questions in 43 Year-5 Surveys in comparison to 707 total WAC plans completed during 1998-2007.

	2007	Total
Overall, have you been satisfied with your plan during the past five years?	81%	83%
Have you consulted your plan since it was completed five years ago?	81%	74%
Do you feel that owning a plan has improved your stewardship of your land?	81%	83%
Have you enrolled your plan in the NYS Forest Tax Law Program?	37%	40%
Have you retained the services of your forester since completing your plan?	<u>63%</u>	<u>55%</u>
• Five-Year Plan Update	59%	51%

• Timber Stand Improvement (TSI)	44%	54%
• Commercial Timber Sale	41%	42%
• Property Line Maintenance	41%	28%
• Wildlife Enhancement	30%	24%
• Roads/Trails Improvement	22%	27%
• Tree Planting	4%	9%
Does your plan recommend forestry activities during the past five years?	<u>60%</u>	<u>60%</u>
• If YES, did you complete these recommendations?	62%	66%
Does your plan recommend water quality practices during the past five years?	<u>28%</u>	<u>29%</u>
• If YES, did you complete these recommendations?	58%	62%
Are there recommendations you were planning to complete but haven't yet?	<u>28%</u>	<u>36%</u>
• Timber Stand Improvement (TSI)	50%	63%
• Commercial Timber Harvest	33%	34%
• Wildlife Enhancement	33%	29%
• Five-Year Plan Update	25%	35%
• Roads/Trails Improvement	25%	39%
• Erosion Control Devices	17%	15%
• Stream Crossings	17%	17%
• Tree Planting	8%	16%
• Riparian Management	8%	5%
• Property Line Maintenance	0%	31%
Have you conducted a timber sale during the past five years?	<u>26%</u>	<u>28%</u>
• If YES, did you hire a professional forester?	73%	87%
• If YES, did you hire a trained/certified logger?	55%	88%
Are you planning to conduct a timber sale during the next five years?	<u>28%</u>	<u>31%</u>
• If YES, are you planning to hire a professional forester?	75%	83%
• If YES, are you planning to hire a trained/certified logger?	83%	81%
Have you recommended the Forestry Program to others during the past 5 years?	53%	63%
Have you participated in workshops or other events during the past 5 years?	37%	30%

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 the lowest reason for owning a plan, whereas non-timber values such as wildlife, hunting, hiking, aesthetics, and recreation continue to rank as more important reasons; these watershed results are wholly consistent with state and national 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 Road BMP Program, NYS Forest Tax Law Program, WAC Easement Program, and DEP Land Acquisition Program. The following results represent the 86 landowners who completed WAC plans during 2007:

- Fifty-nine landowners (69%) were eligible to participate in the NYS Forest Tax Law Program by owning at least 50 acres of forest land. Twenty-three of these landowners (39%) actually enrolled all or part of their properties in this program as per data provided by the NYS Department of Environmental Conservation. This figure is consistent with the Year-5 Survey results, in which 37% of respondents reported enrollment.
- Seven landowners (8%) updated their WAC plans since 2007 while two landowners (2%) are currently in the process of updating their plans through WAC. Six of the WAC plans (7%) evaluated this year represent updated WAC plans from before 2007.
- Twenty-one landowners (24%) were approved for 27 road BMP projects through the WAC Forestry Program. Nineteen of these landowners (90%) completed 25 projects.
- Twenty-five landowners (29%) were approved to implement 48 MAP projects through the WAC Forestry Program out of 61 submitted applications. These 48 approved projects include 30 timber stand improvement (TSI) projects, seven tree planting projects, six wildlife improvement projects, and five invasive species control projects. Thirty-nine of these projects (81%) were completed, seven projects (15%) were cancelled by the landowner, and two projects (4%) are still pending completion.
- None of the landowners sold their land to New York City in fee simple although 10 landowners (12%) entered into a conservation easement through DEP's Land Acquisition Program covering approximately 1,535 acres.
- Eight landowners (9%) entered into a conservation easement through WAC's Agricultural Easement Program covering approximately 1,901 acres.

6. Summary

Forest management planning and implementation are integral to the Watershed Forestry Program's effort to encourage and support long-term forest stewardship. This report evaluated 86 WAC forest management plans completed during 2007. Next year, DEP and WAC plan to evaluate 62 plans that were completed during 2008 and turn five years old in 2013.

7. References

The Pew Research Center. 2012. Assessing the representativeness of public opinion surveys. Washington, DC. (<http://www.people-press.org/2012/05/15/assessing-the-representativeness-of-public-opinion-surveys/>)