

DELAWARE COUNTY STREAM CORRIDOR MANAGEMENT PROGRAM

**TWO-YEAR ACTION PLAN for the WEST BRANCH DELAWARE RIVER
CANNONSVILLE RESERVOIR BASIN**

May 2009 - April 2011



Village of Walton - Terrace Avenue Streambank Restoration - 2007

DELAWARE COUNTY STREAM CORRIDOR MANAGEMENT PROGRAM

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CANNONVILLE RESERVOIR BASIN**

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Table of Contents

- 1. Program Development**
- 2. Staff Training and Development**
- 3. Education and Outreach**
- 4. Schedule of Stream Intervention Projects**
- 5. Project Monitoring**
- 6. Streamside Assistance Program**
- 7. Flood Response and Other Unexpected Events**

Task I. Program Development

The Delaware County Soil & Water Conservation District (DCSWCD) and New York City Department of Environmental Protection (NYCDEP) is transitioning to the implementation phase of the local Stream Corridor Management Plans (SCMPs). Certain tasks are pertinent to overall program development, especially DCSWCD-NYCDEP-local stakeholder efforts. Specific activities would include:

Task I-A - Project Advisory Committee (PAC)

| Implementation | | | Evaluation | | |
|---|---|-----------------|--|--|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action items | How and when will evidence be gathered |
| Re-form Project Advisory Committee - Identify potential members and solicit for an organizational meeting | DCSWCD, DCPD, DEP, stakeholder committee - 2008 | NYCDEP Contract | Set-up meeting, solicitation of members, organizational meeting, number of member attending meetings | PAC membership finalized and second meeting held by June 2009. Semiannual meetings required thereafter. Meetings held 5 workshops/trainings for PAC members held by 2012. | Documentation of activities as they occur. Semi-annual reporting. |
| Form SubCommittees | DCSWCD, DCPD, DEP, stakeholder committee - 2008 | NYCDEP Contract | Set-up meeting, solicitation of members, organizational meeting, number of members attending | Continue to expand the number of sub-committees. Hold initial organizational meetings with all proposed sub-committees by August 2009. 5 meetings per sub-committee held by 2012. Prepare subcommittee administration plans and action plans | Documentation of activities as they occur. Semi-annual reporting. Subcommittees will be tracked in EB Action Plan |
| PAC interaction: | PAC members - ongoing | NYCDEP Contract | | | |
| Implement prioritized SCMP recommendations | PAC members - ongoing | | Recommendation implementation on local level. Number of recommended actions recorded and tracked | Sub-committees contribute action items to action plan and assist with implementation. Proposed action items tracked and reported on annually. Priority list revised and updated by February 2010 | Documentation of activities as they occur. Semi-annual reporting. |
| Identify future needs | PAC members - ongoing | | Needs identified | Sub-committees will help identify future needs. | Documentation of needs as they occur. Semi-annual reporting. |
| Guide and participate in E/O efforts | PAC members - ongoing | | PAC participation in E/O efforts | Scheduling of 5 E/O events by 2012 with PAC participation. | Documentation of PAC participation and contribution, semi-annual reporting |
| Consult with SCMP staff as needed | PAC members - ongoing | | Open dialogue | SCMP staff will serve on sub-committees | Records of consultations |

Task I-A - Project Advisory Committee (PAC)

| Implementation | | | Evaluation | | |
|---------------------------------------|-------------------------------------|-----------------|---|---|--|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action items | How and when will evidence be gathered |
| Promote community stewardship efforts | PAC members - ongoing | | Active community stewardship role | PAC initiates 3 stewardship efforts independently | Community participation in established, pilot and new programs. Semi-annual reporting. |
| Meet quarterly with PAC | SCMP, DCPD, NYCDEP, PAC - quarterly | NYCDEP Contract | Meetings held as scheduled Increase active role in decision making | 8 meetings scheduled by 2012 | Meeting minutes distributed within one week of meeting |

Program partners - NYCDEP, Delaware County agencies, state and federal agencies

Stakeholders - Towns, villages, local businesses, landowners

Task I-B - Delaware County Planning Department (DCPD) Contract

| Implementation | | | Evaluation | | |
|---|----------------------------------|-----------------|---|---|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Renew contract | DCSWCD, DCDP - April 2008 | NYCDEP Contract | Contract execution | | When contract is executed |
| Contract deliverables | | | | | |
| Hire Stream Planner | DCPD, DCSWCD, NYCDEP - 2008 | NYCDEP Contract | Job announcement out. Applications received. Interviews conducted. Position filled. | | Documentation of completed steps of the process. Annual reporting. |
| Participate with PAC activities | SCMPPr, DCDP - ongoing | NYCDEP Contract | Participation occurs | Stream Planner to advise Flood Management, Highway/Infrastructure and Education and Outreach sub-committees | Documentation of participation. Annual reporting. |
| Integrate SCMPPr activities with flood hazard mitigation (CEMP) and All-Hazards Mitigation Plan | SCMPPr, DCPD - ongoing | NYCDEP Contract | Participation occurs | Incorporate SCMP recommendations into updates of CEMP and All-Hazards Mitigation Plan and vice-versa | Documentation of participation. Annual reporting. |
| Work with communities to integrate stream protection concepts in local regs and Comprehensive Plans | SCMPPr, DCPD - ongoing | NYCDEP Contract | Actual changes in these documents | SCMP referenced in local planning documents and regulations | Documentation as changes occur. Annual reporting. |
| Participate in training efforts for local gov'ts, planning boards, CEOs and general public | SCMPPr, DCPD - ongoing | NYCDEP Contract | Number of training events held | Hold 5 trainings by 2012 | Documentation of training events. Provide evaluation results from participants. Annual reporting. |
| Assist with public outreach efforts | SCMPPr, DCPD - ongoing | NYCDEP Contract | Number of outreach events | Adoption of SCMP at municipal level in most West Branch communities by January 2010 | Documentation of outreach efforts. Semi-annual reporting. |
| Development of model local floodplain development laws | SCMPPr, DCPD - ongoing from 2008 | NYCDEP Contract | Drafts of floodplain laws, public hearings, submission to Secretary of State | Participate in local adoption of new FEMA floodplain maps starting Summer 2009 | Documentation of law development phases. Annual reporting. |
| Implementation of model local floodplain development laws | SCMPPr, DCPD - ongoing from 2009 | NYCDEP Contract | Number of communities adopting revised local floodplain laws. Number of permits issued. How permits are issued. | Participate in local adoption of new FEMA floodplain maps starting Summer 2009 | Documentation of law development phases. Annual reporting. |
| Assist with basin-specific management plan development | SCMPPr, DCPD - ongoing as needed | NYCDEP Contract | Plan development activities | Addition of Town of Tompkins to WBDR SCMP, evaluating potential for formation of sub-basin watershed groups | Completion of drafts of various plan components. Semi-annual reporting. |

Task I-C - Delaware County Department of Public Works (DCDPW)

| Implementation | | | Evaluation | | |
|--|---|--------------------------------------|---|--|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Develop MOA with DCDPW | DCSWCD, DCPD, NYCDEP, DCDPW - Spring 2008 | NYCDEP Contract | Identify DCDPW needs. Identify action items. | | Needs identified. Action items acted on. Annual reporting. |
| Training opportunities | DCSWCD, DCPD | DCSWCD, DCPD | Trainings scheduled and held, number of participants reported | Schedule 2 trainings by 2012 | Meeting sign-in sheets |
| Collaboration on stream/stormwater projects | DCSWCD, DCDPW | DCSWCD, DCDPW, NYCDEP contract funds | Collaboration between DCSWCD and DCDPW on project design and implementation | County Rte. 22 Restoration project, various culvert and stormwater infrastructure projects | As-built documents, Annual reports, key communications on reviews |
| Planning/design (Highway Management Plans, etc.) | DCSWCD, DCPD, DCDPW | DCSWCD, DCPD, DCDPW | Process established for review of HMPs and other plans/designs | Highway Plans reviewed, SCMP recommendations incorporated. | Finalized HMPs |

Task I-D - Implementation of WBDR SCMP Recommendations

| Implementation | | | Evaluation | | |
|--|--|--|---|---|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| 1) Collaboration with Watershed Ag Program (WAP) | SCMP, NYCDEP, WAP - spring 2008 | NYCDEP Contract | Discussion meeting | 8 meetings held by 2012 | Meeting minutes distributed within one week of meeting |
| a) Develop education program in stream process and basic stream assessment for planning and implementation teams | SCMP, NYCDEP, WAP - spring 2008 | NYCDEP Contract | Training program in place | Finalization of training materials, 4 trainings to be held by 2012, 40 participants trained | Documentation of training session(s). Provide evaluation results from participants. |
| b) Work toward updating and implementing Environmental Review /Project Diagnosis | SCMP, NYCDEP, WAP - 2008 | NYCDEP Contract | Progress on the task. Updates complete. | Stream assessment incorporated | Documentation of progress. Annual reporting. |
| c) Develop program collaboration protocols between WAP and SCMP | SCMP, NYCDEP, WAP - spring 2008 | NYCDEP Contract | Protocols in place. | Finalize SOP with WAP by fall 2009 | Documentation of strategies. Annual reporting. Number of projects reviewed and advised on |
| 2) Provide technical support for Conservation Reserve Enhancement Program (CREP) implementation | SCMP, NYCDEP, NRCS, WAP - as needed | NYCDEP Contract, others as identified | Identification of ineligible reach, initial consultation, CREP commitment by producer, design survey, project design, project permitting & implementation | Work with NRCS on 5 projects by 2012. Develop administrative plan. | Impacted reach enrolled in CREP. Project timeline form executed. Annual reporting. |
| 3) Assist NYCDEP and WAC with efforts to enhance cropland CREP implementation/Explore long-term CREP contracts | SCMP, NYCDEP, NRCS, WAP - as needed | NYCDEP Contract, USDA, WAP, others as identified | More cropland acres enrolled in CREP by 2012 | Continue to advocate cropland CREP with farmers, WAC, etc. | Options identified. Project timeline form executed. Annual reporting. |
| 4) Develop Variable Width Buffer Program | SCMP, NYCDEP, NRCS, WAP - as needed, 2009 goal | NYCDEP Contract, USDA, WAP, others as identified | Identification of pilot project site | Pilot project designed and implemented by 2010. Develop administrative plan. | Impacted reach identified. Project timeline form executed. Annual reporting. |
| 5) Assist municipalities with their participation with Catskill Watershed Corporation (CWC) programs | SCMP, NYCDEP, CWC-ongoing | CWC funds | Funds granted for stream corridor and other projects. Consultations with local municipalities for new Stream Corridor Protection program. | Continue to identify projects eligible for CWC funding Assist with project feasibility reviews Assist implementation where needed | Documentation of consultations and projects. Annual reporting. |
| 6) Implement Streamside Assistance Program (SAP) | SCMP, NYCDEP - 2008 | NYCDEP Contract, others as identified | See section VI | | See section VI |

Task I-D - Implementation of WBDR SCMP Recommendations

| Implementation | | | Evaluation | | |
|---|---|--------------------------------------|---|--|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| 7) Stream gravel deposition issues | SCMP, NYSDEC, USACOE, NYCDEP, CWC - 2008 | NYCDEP Contract, CWC | Sponsoring of workshops. Identification of pilot project and implementation of management protocol. Participation with InterAct | Scheduling of 3 workshops with stream intervention practioners and others concerned with stream gravel issues Pilot testing of protocol. | Documentation of workshops & meetings. Impacted reach identified. Project timeline form executed. Annual reporting. |
| 8) Establish stream work permitting working group | SCMP, DCDPW, NYCDEP, NYSDEC, USACOE, USFWS, other SWCDs - 2009 | NYSDEC, USACOE, NYCDEP Contract | Preliminary meetings held. Working group developed. Participation with InterAct | Highway Infrastructure Management/Gravel and Debris Management/ Streamlined Permitting Sub-Committee organizational meeting held by June 1 2009. Develop administrative plan | Meeting minutes distributed within one week of meetings. Semi-annual reporting. |
| 9) Culvert assistance to municipalities | SCMP, towns, villages, county, NYSDEC, USACOE, NYCDEP - 2009 | NYCDEP Contract, CWC, others | Workshops. Participation with InterAct. Project design and/or implementation assistance. | 2 meetings/workshops held by 2012. 20 culverts assessed by 2012. 3 culvert projects completed by 2012. | Documentation of workshops & meetings. Impacted reach identified. Project timeline form executed. Annual reporting. |
| 10) Participation with DCAP | SCMP, DCAP partners - ongoing | NYCDEP Contract, DCDWSA, CWC, others | Bi-monthly meetings. Partnering activities. | 30 meetings with DCAP partners held by 2012 | Meeting minutes distributed within one week of meetings. Documentation of partnering activities. Annual reporting. |
| 11) Expand public education and outreach | SCMP, DCPD, NYCDEP, CWC, watershed stakeholders ongoing | NYCDEP Contract, CWC, others | WOH vision/planning workshops. Public workshops, exhibits, school programs, articles, fact sheets, brochures, etc. | Administrative plan completed by May 31, 2009. 5 meetings with other WOH county agencies to coordinate outreach by 2012. 5 workshops and 5 trainings held by 2012. | Documentation of all activities. Annual reporting. |
| 12) FGM assessments at bridges and culverts | SCMP, towns, villages, county, NYCDEP - as needed and as time permits | NYCDEP Contract, CWC, others | Protocol developed with partners | 5 bridges/culverts assessed by 2012 | Documentation of program progress. Meeting minutes. Annual reporting. |

Task I-D - Implementation of WBDR SCMP Recommendations

| Implementation | | | Evaluation | | |
|--|---|--|---|---|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| 13) Flood hazard mitigation and recovery | SCMP, DCPD - ongoing | NYCDEP Contract, CWC, USDA EWP, FEMA, SEMO, others | Assist Delaware County with CEMP activities and implementation of All-Hazards Mitigation Plan priorities. | 3 Scientific Post-Flood Emergency Stream Intervention for Contractors Trainings to be held April 2009. Administrative Plan completed by Aug 31, 2009. Flood response protocol developed by November 2009. | Documentation of program progress. Annual reporting. |
| 14) Continue geomorphic research/assessments | SCMP, NYCDEP, towns, villages, county, stakeholders - as needed and as time permits | NYCDEP Contract | Assessments requested and performed | Document identified stream reaches. Lower Trout Creek assessment done in 2009. Continue Third Brook assessments in 2009. | Assessment data compiled, entered into geodatabase. Annual reporting |
| 15) Keep WBDR SCMP updated | SCMP, DCPD, DCDWA, DCDPW, NYCDEP, county, towns, villages, planning boards, PAC, stakeholders - ongoing as needed | NYCDEP Contract | Updates/amendments proposed and/or adopted | West Branch Action Plan completed April 2009. East Branch Action Plan completed April 2010. | Documentation of updates. Annual reporting. |
| 16) Local ownership of SCMP | SCMP, DCPD, DCDWA, NYCDEP, PAC, local town and planning boards, stakeholders - 2005 | NYCDEP Contract | Adoption of SCMP by individual municipalities | Plans adopted by high, medium, and low priority municipalities by February 2010. Formalize process for communities to bring potential stream management projects and other action items to attention of DCSWCD. | Plan adopted by Board of Supervisors Resolution No 129 of 2005. Annual reporting. |

Task II. Staff Training & Development

As the SCMPr transitions to the implementation phase of the Stream Corridor Management Plan, additional training will be required to ensure staff will meet program goals. Additional training will be necessary as program activities are further refined. Training needs may include, but not be limited to:

| Implementation | | | Evaluation | | |
|---|---|---------------------------------------|--|---|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| CPESC certification | SCMPr staff - as available | NYCDEP Contract | Training courses attended. CPESC exam taken. | All staff CPESC certified by 2012 | Documentation of training. Certification obtained. |
| Stream processes, gravel and debris management training | WAP planners, technicians, CETs, engineers - 2008 | NYCDEP Contract, WAP | Training courses attended. | | Documentation of training. Certification obtained (where applicable). |
| River morphology/engineering | DCSWCD CETs, NRCS and WAP engineers, local highway personnel, CWC - as professional instructors are available | NYCDEP Contract, WAP, NRCS, CWC | Training course(s) attended | | Documentation of training. Certification obtained (where applicable). |
| Rosgen courses | SCMPr staff, DCSWCD CETs - as courses are available | NYCDEP Contract, WAP | Training course(s) attended | Planner completes level I, SAP Coordinator completes I and II, EIT completes IV, Technician 2 completes III, Tech Trainee completes III by 2012 | Documentation of training. Certification obtained (where applicable). |
| Advanced hydrology | Selected SCMPr and DCPD staff - as available | NYCDEP Contract, others | Training course(s) attended | Engineer and EIT complete HEC RAS training | Documentation of training. Certification obtained (where applicable). |
| Sediment transport | Selected SCMPr and DCPD staff - as available | NYCDEP Contract, others | Training course(s) attended | | Documentation of training. Certification obtained (where applicable). |
| Floodplain management | Selected SCMPr and DCPD staff - as available | NYCDEP Contract, NYSDEC, FEMA, others | Training course(s) attended | Planner completes courses necessary for CFM, DEP Project Manager completes courses necessary for CFM | Documentation of training. Certification obtained |
| Riparian buffer design | SCMPr staff- as available | NYCDEP Contract - SAP | Training course(s) attended | SAP Coordinator completes training in contract management and procurement, landscape design, plant identification/propagation and statistical analysis. | Documentation of training. Certification obtained (where applicable). |

Task II. Staff Training & Development

As the SCMP transitions to the implementation phase of the Stream Corridor Management Plan, additional training will be required to ensure staff will meet program goals. Additional training will be necessary as program activities are further refined. Training needs may include, but not be limited to:

| Implementation | | | Evaluation | | |
|-----------------------|------------------------------------|-----------------|----------------------------------|---|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Computer software | SCMP and DCPD staff - as available | NYCDEP Contract | Training course(s) attended | EIT and Technician stay current with AutoCAD Civil 3D and Technician and Tech Trainee stay current with ARCGIS. EIT, Tech and Engineer train in use of Rivermorph | Documentation of training. Certification obtained (where applicable). |
| Education & Outreach | SCMP and DCPD staff, as available | NYCDEP Contract | Training course(s) attended | Planner and SAP Program Coordinator train in education and outreach to stakeholders | Documentation of training. Certification obtained (where applicable). |

Task III. Education and Outreach

DCSWCD will continue education efforts on stream processes, gravel management, floodplain management, integration of stream and floodplain management with highway and stormwater management and other topics pertinent to sound watershed management. Efforts to significantly increase education and outreach is a high priority. The objectives of these efforts are to dispel myths and improve local knowledge of sound management principles.

| Implementation | | | Evaluation | | |
|--|---|--|--|---|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Stream process/gravel and floodplain management workshops for planning/governing boards, hwy supts, CEOs, developers, lenders, realtors, SEMO and others as identified | SCMP, DCPD and NYCDEP staff, consultants - Prepare goals in 2008 - on going | NYCDEP Contract | Workshops scheduled | 5 Workshops held by 2012 | Documentation of workshops. Annual reporting. |
| SCMP outreach to local planning boards | SCMP, DCPD and NYCDEP staff - Prepare goals in 2008 - on going | NYCDEP Contract | Workshops scheduled | Meet with all Planning Boards in watershed by January 2010 | Documentation of workshops. Annual reporting. |
| Stream intervention work training for local hwy depts, contractors. | SCMP and NYCDEP staff - 2008-2009 | Round IX EPF grant, NYCDEP Contract | Training scheduled - classroom and on site venues. Apply for next EPF funding round to continue. | 3 Trainings scheduled for April 2009 | Documentation of training. Annual reporting. |
| Catskill Center for Conservation & Development CSWEP program in local schools | SCMP staff - ongoing each spring | Catskill Center, WAC | Trainings scheduled | Regularly visit 5 schools each year. | Documentation of trainings. Annual reporting. |
| Participation with Japanese Knotweed pilot projects | SCMP staff - ongoing | NYCDEP Contract, SUNY Delhi AmeriCorps | Technical outreach and assistance provided | Participation in 5 projects by 2012 | Documentation of outreach and assistance. Annual reporting. |
| Delaware County Fair | SCMP staff - each year during Fair Week | NYCDEP Contract | Display/demonstration planned & organized | Display/demonstration deployed at fair August 17-23 2009 | Display/demonstration implemented. Annual reporting. |
| Community events | SCMP staff - as requested, as time permits | NYCDEP Contract | Demonstration planned & organized | Organize and host 3 stream focused community events by 2012, participate in 5 other community events. | Demonstration implemented. Annual reporting. |

Task III. Education and Outreach

DCSWCD will continue education efforts on stream processes, gravel management, floodplain management, integration of stream and floodplain management with highway and stormwater management and other topics pertinent to sound watershed management. Efforts to significantly increase education and outreach is a high priority. The objectives of these efforts are to dispel myths and improve local knowledge of sound management principles.

| Implementation | | | Evaluation | | |
|-------------------------|----------------------------------|------------------------------|---|--|--|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| General public outreach | SCMP, DCPD, NYCDEP staff ongoing | NYCDEP Contract, CWC, others | Materials produced, websites updated, workshops scheduled | Prepare SCMP update outreach materials for public by Summer 2009 Ramp up efforts to fully utilize Catskill Streams website. Release Action Plan in a format that is legible to the public. | Documentation of publications, website updates & workshops. Annual reporting. |

Task IV. Schedule of Stream Intervention Projects

Stream restoration, streambank stabilization, emergency stream intervention and any other project involving construction activities to improve stream stability and water quality

| Implementation | | | Evaluation | | |
|--|---|--------------------------------------|---|--|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Develop process to determine how projects will be identified, prioritized and funded | SCMP, NYCDEP, PAC, others - ongoing | NYCDEP Contract, others | Meetings to develop protocol. Protocol developed and implemented. | Develop protocol in 2009 | Documentation of progress |
| Implement vegetation component at Terrace Avenue | SCMP, DCDWSA, USACOE, NYCDEP, Village of Walton - spring 2008 | USACOE, NYCDEP, Village of Walton | Vegetation implementation commenced and completed. As-built surveys completed. Project close-out. | | Documentation of implementation and project completion. Annual reporting. |
| Implement vegetation component at South Street | SCMP, DCDWSA, USACOE, NYCDEP, Village of Walton - spring 2009 | USACOE, NYCDEP, Village of Walton | Vegetation implementation commenced and completed. As-built surveys completed. Project close-out. | Project completed by December 2009 | Documentation of implementation and project completion. Annual reporting. |
| Loewentheil stream intervention to facilitate CREP Trout Creek - WBDR | SCMP, NYCDEP, WAP - 2010 | WAP, NYCDEP Contract | Design/permitting in progress. Project approved by NYCDEP and landowner. Project out to bid. Project implemented, as-built surveys, close-out. | Project completed by December 2010 | Documentation of design/permitting/bidding and construction, as-builts and close-out. Annual reporting. |
| General flood and floodplain mitigation | SCMP, DCDWSA, NYSDEC, NYCDEP, Municipalities, local stakeholders - 2009 | CWC, NYSDEC, NYCDEP Contract, others | Construction implemented. Planning meetings held. Design/permitting in progress for future components. Construction implemented. Projects out to bid. | 1 flood mitigation project completed by 2012 | Documentation of planning meetings/design/permitting/bidding and construction. Annual reporting. |
| Perform Level II survey of Trout Creek in Shelton-LaTourette-Backus corridor | SCMP - 2009 | NYCDEP Contract | Level II survey in progress and completed | Report compiled and finalized by (date) | Data collected and analyzed. Report compiled. Annual reporting. |

Task IV. Schedule of Stream Intervention Projects

Stream restoration, streambank stabilization, emergency stream intervention and any other project involving construction activities to improve stream stability and water quality

| Implementation | | | Evaluation | | |
|---|---|--------------------------------------|--|---|--|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Implementation of EWP planting plans | SCMPr, NYCDEP, NYSDEC, NRCS, local municipalities/landowners - 2009 | NYCDEP Contract, NYSDEC, NRCS | Eligible site field visits. Planting plans developed. Permits extended/obtained. Projects out to bid. Projects implemented. | 1 EWP planting plan designed and installed by 2012 | Documentation of all project phases. Annual reporting. |
| County Route 22 Mitigation | SCMPr, NYCDEP, NYSDEC, DCDPW, others- 2012 | NYCDEP Contract, FEMA, DCDPW, others | Design/permitting in progress. Project approved by NYCDEP, NYSDEC, DCDPW and landowners. Project out to bid. Project implemented, as-built surveys, close-out. | Receive FEMA design approval. Complete design in 2009 | Documentation of all project phases. Annual reporting. |
| Round 9 Grant Training | SCMPr, NYCDEP, NYSDEC - 2009-2012 | NYCDEP Contract, NYSDEC | Trainings held | 4 trainings held by 2012 | Documentation of trainings |
| Falls Creek Mitigation - NYS Route 28 - Town of Delhi | SCMPr, NYCDEP, NYSDOT - 2011 | NYCDEP Contract, NYSDEC, others | Survey completed. Project approved by NYSDOT and NYCDEP. Design/Permitting in progress. Project out to bid. Project implemented, as-built surveys, close-out | Project completed by 2011 | Documentation of all project phases. Annual reporting. |
| Third Brook Slope Stabilization | SCMPr, NYCDEP, CWC, USACE, others - 2011 | NYCDEP Contract, CWC, USACE, others | Geotech survey and analysis. Surveys completed. Project approved by NYSDOT and NYCDEP. Design/Permitting in progress. Project out to bid. Project implemented, as-built surveys, close-out | Project completed by 2011 | Documentation of all project phases. Annual reporting. |
| Dubben Property Planting | SCMPr, NYCDEP, CWC - 2009 | SCMPr, CWD | Design completed. Project out to bid. Project implemented, as-built surveys, close-out | Project completed by 2009 | Documentation of all project phases. Annual reporting. |

Task IV. Schedule of Stream Intervention Projects

Stream restoration, streambank stabilization, emergency stream intervention and any other project involving construction activities to improve stream stability and water quality

| Implementation | | | Evaluation | | |
|--|------------------------------------|--------------------------------|--|---|--|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Floodplain Purchase and Reclamation - Village of Walton | SCMP, NYCDEP, USACE, Others - 2011 | NYCDEP Contract, USACE, others | Contract for land purchase. Reclamation plan approved. Reclamation completed. | Project completed by 2011 | Documentation of all project phases. Annual reporting. |
| Richard LaTourette Farm - stream intervention to facilitate CREP - Trout Creek | SCMP, NYCDEP, WAP - 2009 | WAP, NYSDEC, NYCDEP Contract | Landowner acceptance. Round XV AEM grant applied for. Design/permitting in progress. Project out to bid. | Project completed and property enrolled in CREP by 12/2010 | Documentation of activities. Annual reporting. |
| Jim Backus Farm - stream intervention to facilitate CREP Trout Creek | SCMP, NYCDEP, WAP - 2010 | WAP, NYSDEC, NYCDEP Contract | Landowner acceptance. Round XV AEM grant applied for. Design/permitting in progress. Project out to bid. | Project completed and property enrolled in CREP by 12/2010 | Documentation of activities. Annual reporting. |
| Other CREP facilitation projects as identified | SCMP, NYCDEP, WAP - as identified | WAP, NYCDEP Contract, others | Landowner acceptance. Round grants applied for. Design/permitting in progress. Project out to bid. | 2 of projects and related property enrolled in CREP by 2012 | Documentation of activities. Annual reporting. |

Task V. Project Monitoring and Maintenance

It is a requirement that completed restoration projects be monitored for a given period of time to evaluate project effectiveness and gather data for use on future projects. The following projects will require post-project monitoring from 2009-2012

| Implementation | | | Evaluation | | |
|--|------------------|-----------------------|---|--|--|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| David Post stream restoration and retrofit | SCMP: 2009-2012 | NYCDEP Contract | Monitoring performed, reports submitted to DEP | Monitoring and reports submitted to NYCDEP annually by December 31 | Monitoring documented. Annual reporting. |
| John Palmitier stream stabilization | SCMP: 2009-2012 | NYCDEP Contract | Monitoring performed, reports submitted to DEP | Monitoring and reports submitted to NYCDEP annually by December 31 | Monitoring documented. Annual reporting. |
| David Rama stream restoration | SCMP: 2009-2012 | NYCDEP Contract | Monitoring performed, reports submitted to DEP | Monitoring and reports submitted to NYCDEP annually by December 31 | Monitoring documented. Annual reporting. |
| Village of Walton restoration project - South Street & Terrace Avenue locations | SCMP: 2009-2012 | NYCDEP Contract | Monitoring performed, reports submitted to DEP | Monitoring and reports submitted to NYCDEP annually by December 31 | Monitoring documented. Annual reporting. |
| USC Culvert Demonstration - Palmer Hill, Town of Walton | SCMP: 2009-2012 | NYCDEP Contract | Monitoring performed, reports submitted to DEP | Monitoring and reports submitted to NYCDEP annually by December 31 | Monitoring documented. Annual reporting. |
| Develop monitoring protocol for Stream Intervention and SAP projects, to include reporting to NYCDEP | SCMP: 2009 | NYCDEP Contract | Protocol update process in progress and completed | Draft protocol submitted to NYCDEP by December 2009 | Document stages of protocol development |
| USDA EWP flood mitigation sites | SCMP: 2009-2012 | NYCDEP Contract, NRCS | Monitoring performed | N/A | Monitoring documented. Annual reporting. |

Task VI. Streamside Assistance Program

The Streamside Assistance Program (SAP) is a requirement of the 2007 FAD and is also a WBDR SCMP recommendation (See Task I-D, recommendation #6). The program is required to be

| Implementation | | | Evaluation | | |
|---|--------------------------|-----------------|---|---|---|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Hire employee | SCMP, NYCDEP - mid 2008 | NYCDEP Contract | Job description completed. Position advertised. | | Document progress. Employee hired. Annual reporting. |
| Employee orientation | SCMP, NYCDEP - fall 2008 | NYCDEP Contract | Orientation completed | | Orientation completed. Annual reporting. |
| Develop program in collaboration with WOH SAP & RBWG partners | SCMP, NYCDEP - fall 2008 | NYCDEP Contract | Start-up meetings attended. Program protocols developed. | Meetings held with working group partners. Develop administration plan. Assist with riparian vegetation characterization. | Document progress. Annual reporting. |
| Work with streamside landowners | SCMP, NYCDEP - 2009 | NYCDEP Contract | Recruit landowners. Individual landowner SMPs developed & implemented. Technical assistance provided for implementation, monitoring and maintainance. | 25 individual landowner SMPs by 2012. 15 installations by 2012. | Document recruitment progress, landowner SMPs, technical assistance & monitoring & maintainance. Semi-annual reporting. |
| Participate in education and outreach efforts | SCMP, NYCDEP - ongoing | NYCDEP Contract | Workshops scheduled | Establish and coordinate E/O PAC sub-committee. Work with partners on marketing strategy. Develop and distribute E/O materials. | Documentation of workshops. Semi-annual reporting. |
| Participate in SAP evaluation | SCMP, NYCDEP - ongoing | NYCDEP Contract | Activities scheduled | Establish monitoring protocols and continue to revise participation guidelines. | Documentation of activities. Semi-annual reporting. |

Task VII. Flood Response and Other Unexpected Events

Some events, either natural or manmade, are beyond the control of the contracting parties. This may include flood emergencies, or a regulatory body may require the time or other input of the DCSWCD that benefits program goals, but is unplanned. DCSWCD may be called upon to assist partnering counties within the West of Hudson watershed. Planned activities will include enhancing coordination with partnering county agencies.

| Implementation | | | Evaluation | | |
|--|--|-------------------------|---|--|--|
| What needs to be done | By whom and when | What resources | What evidence indicates progress | Action Items | How and when will evidence be gathered |
| Enhance relationship with Delaware County EOC | SCMP, NYCDEP, DCPD, DCDPW, DC Emergency Services- ongoing | NYCDEP Contract, others | Activities performed | 3 meetings held by 2012 | Documentation of activities. Annual reporting. |
| Work with partners to implement county All Hazards Mitigation Plan | SCMP, NYCDEP, DCPD, DCDPW, DC Emergency Services, SEMO, FEMA - ongoing | NYCDEP Contract, others | Activities performed | 3 meetings with AHMP partners held by 2012 | Documentation of activities. Annual reporting. |
| Evaluate a flood event | SCMP, NYCDEP - as needed | NYCDEP Contract, others | Evaluation completed. Response/recovery protocols developed. Actions taken. | | Documentation of activities. Annual reporting. |
| Evaluate regulatory request | SCMP, NYCDEP - as needed | NYCDEP Contract, others | Evaluation completed. Protocols developed. Actions taken. | | Documentation of activities. Annual reporting. |
| Evaluate other unexpected events | SCMP, NYCDEP - as needed | NYCDEP Contract, others | Evaluation completed. Protocols developed. Actions taken. | | Documentation of activities. Annual reporting. |
| Technical assistance to community flood response and recovery | SCMP, NYCDEP, DCPD - as needed | NYCDEP Contract, others | Evaluations performed. Protocols developed. Actions taken | Communities helped after flood event as needed | Documentation of activities. Annual reporting. |
| Continue to develop emergency flood-work database | SCMP, NYCDEP, DCPD, NYSDEC - ongoing | NYCDEP Contract, others | Database updates. | Database updated in a timely manner post flood | Documentation of activities. Annual reporting. |