F. X. Browne, Inc.
Memorandum

To: Fairfax County
From: F. X. Browne, Inc.
Date: April 12, 2010
RE: Tasks 3.3, 3.4 and 3.5 Evaluation and Ranking of Candidate Structural and Non-Structural Projects for Nichol Run and Pond Branch Watersheds

Task 3.3 requires that potential candidate sites be investigated in the field to evaluate the potential scope, feasibility, and benefits of each candidate project. Tasks 3.4 and 3.5 require candidate structural projects be evaluated and ranked following the guidelines described in Section 5.1-E of the WMP Standards version 3.2 and that non-structural candidate projects be evaluated and ranked using best professional judgment based on their overall benefit and feasibility in meeting watershed goals and objectives.

Task 3.3 Investigation of Candidate Projects

Watershed advisory group (WAG) members reviewed proposed candidate projects and discussed overall project selection methods and the location and scope of individual proposed projects at a WAG meeting on June 30th, 2009. Comments from the WAG meeting were summarized and considered during field reconnaissance efforts.

Field visits to candidate sites were conducted for all potential candidate structural projects in the Nichol Run and Pond Branch watersheds from June 29th through July 3rd. A field evaluation form, provided by the County, was completed for each candidate project site. Additional notes were taken on aerial photographs of candidate sites and photos were taken at each site. Data recorded on field forms were digitized into a County-provided database (*filename*).

Field reconnaissance efforts helped to provide a basis for the initial reduction of candidate projects. Various constraints for new stormwater management facilities identified during field reconnaissance efforts that limited project feasibility included space, slope, utilities, a change in the development status, and existing, mature vegetation; all potential project constraints were recorded on field forms and digitized into the County-provided database. Some proposed projects were deemed low priority due to favorable existing conditions including properly functioning and appropriately sized outlet structures, naturalized basin bottoms and swales, adequate energy dissipation, and a general lack of visible impacts from high velocity and high volume stormwater flows.

Best professional judgment was used to reduce the initial list of candidate structural projects to 70 projects in Nichol Run and Pond Branch watersheds. Factors considered during the initial feasibility analysis included constraints identified during field reconnaissance, the size and scale

of the projects, the location and distribution of projects within a subwatershed, existing stormwater treatment in the subwatershed, project drainage area, and specific WAG member comments. Candidate projects deemed viable were those which had few, if any, site constraints, would provide significant additional stormwater treatment to a subwatershed, and were considered to be of significant size and scope.

Upon completion of the field reconnaissance efforts and initial feasibility analysis, candidate project sites that were deemed viable were digitized into GIS polygon shapefile format (*N_projects.shp; P_projects.shp*).

Project Cost Estimates
Costs were estimated for each project using unit costs provided by the County. The County considers a project to be of considerable size and scope if it is a minimum of $80,000. Smaller projects of similar scope and close proximity were grouped together during the initial reduction of candidate projects under Task 3.3. Individual sub-projects in a suite of grouped subprojects may be estimated to cost less than the County-minimum of $80,000; however, the total project group is greater than the threshold for project qualification.

Task 3.4 Evaluation and Ranking Candidate Structural Projects
Viable structural projects were given a six or seven digit project number according to the following numbering convention: XX9YZZ; where XX is the 2-digit watershed code, Y is the project type code, and ZZ is a 2-digit numbering code starting with 00 at the lowest point in the watershed. An additional seventh letter is used for any project with multiple subprojects.

Project type codes have been defined by the County in order to maintain consistency throughout the watershed management plans. Project type codes used in the Nichol Run and Pond Branch watersheds include:

1 – New Stormwater Ponds and Stormwater Pond Retrofits
2 – Stream Restoration and Streambank Stabilization
3 – Area-wide Drainage Improvements
4 – Road Crossing Improvements and Culvert Retrofits
5 – New Low Impact Development/Best Management Practices and LID/BMP Retrofits
9 – Non-Structural Projects

Viable structural projects were prioritized and ranked according to the guidance set forth in Section 5.1E of the Watershed Management Plan Standards 3.2. Structural projects were scored from 1 to 5 points, with 5 representing the highest priority and 1 representing the lowest priority.

The project scores were based on the following five factors:

1. Effect on Watershed Impact Indicators
2. Effect on Source Indicators
3. Location within Priority Subwatersheds
4. Sequencing
5. Implementability

Evaluation of structural projects based on each of these factors is discussed in further detail below. Prioritization tables for each factor are located in Appendices A, B, C, D, and E.

GIS Processing

Prior to prioritization and ranking outlined in Section 5.1E, a sequence of GIS processing was required in preparation for water quality modeling with STEPL. The projects were divided into five 'runs' for GIS processing and water quality modeling purposes. Each run contained no more than one project per subwatershed; projects with multiple subprojects and regional pond alternative scenarios were processed together in order to model the benefits of the entire group of projects.

Drainage areas to each project with water quality and/or water quantity benefits were delineated in GIS and a revised subarea treatment layer was calculated for each 'run' to show proposed stormwater management for the future with projects modeling scenario. During the GIS processing, output tables were created for each 'run' that contain the land use and soils data for the proposed stormwater management areas for use in water quality and water quantity modeling.

Water Quality Modeling with STEPL

The land use and soils output tables were loaded into the STEPL spreadsheets in order to show the water quality benefits for each proposed candidate project. Previous land use information was cleared from the spreadsheets prior to loading the revised tables in order to ensure an accurate data transfer.

In some cases, the new project drainage areas caused a change in the majority soil type of the subareas within the subwatershed. Because of the changes in majority soil types, the total pollutant loadings before stormwater management facility reductions were applied varied from the future without projects condition to the future with projects condition by as much as 15 percent in either direction. This discrepancy in future pollutant loading resulted in a misrepresentation of the project benefits. In order to minimize the impact from this modeling flaw, the total pollutant loadings without BMP reductions (the total pollutant loading before stormwater management facility reductions were applied) for the future without projects and future with projects were averaged, the future with projects BMP reductions were applied, and an adjusted future with projects pollutant loading was calculated.

Effect on Subwatershed Ranking Indicators

Select subwatershed ranking indicators were evaluated for various candidate project types to facilitate candidate project ranking. Total nitrogen, total phosphorus, and total suspended solids were calculated for the future with projects scenario using STEPL as indicated above. Other indicators could not be calculated for the future with projects condition and were evaluated based on existing condition and/or future without projects condition.

Generally, each indicator without future with projects data was evaluated in two ways. First, the existing and/or future without projects subwatershed ranking data was reviewed to establish the overall need and potential benefit for a project in that particular subwatershed. A project was assumed to have a greater potential benefit if it was located in a subwatershed that was in poor condition compared to a subwatershed that was in better condition Also, if the subwatershed shows a worsening condition from the existing subwatershed ranking scenario to the future without project subwatershed ranking scenario, the subwatershed is in greater need of a proposed

project. The second way each project was evaluated was based on the likely impact of the project on each subwatershed ranking indicator using our best professional judgment. This was dependent on the scale of the project and specific project details.

Project scores for each indicator were within a range from one to five, with five being the most beneficial and one providing the least benefit. Each project started with a score of 3 and was adjusted up or down based on the existing and future without projects subwatershed ranking data and our best professional judgment as indicated above and depicted on Tables 1, 2, and 3.

Table 1 Project Scoring Methodology – Indicators with Existing Condition Only (1)

Project Score Adjustment	**Subwatershed Ranking (SW) Indicators:** Benthic Communities, Fish Communities, Aquatic Habitat, Channel Morphology, RPA Riparian Habitat, Headwater Riparian Habitat, Wetland Habitat
Start with "3", then add or subtract:	
+1	Existing SW Ranking Score 2 or 4
0	Existing SW Ranking Score 6
-1	Existing SW Ranking Score 8 or 10
+1	Great Benefit
0	Some Potential Benefit
-1	Minimal/No Benefit

Table 2 Project Scoring Methodology – Indicators with Existing Condition Only (2)

Project Score Adjustment	**Subwatershed Ranking (SW) Indicators:** Instream Sediment, Channelized/Piped Streams, Stormwater Outfalls, Streambank Buffer Deficiency
Start with "3", then add or subtract:	
+1	Existing SW Ranking Score 2.5
0	Existing SW Ranking Score 5
-1	Existing SW Ranking Score 7.5
-2	Existing SW Ranking Score 10
+1	Great Benefit
0	Some Potential Benefit
-1	Minimal/No Benefit

Table 3 Project Scoring Methodology – Indicators with Future w/out Projects Data

Project Score Adjustment	**Subwatershed Ranking (SW) Indicators:** Hydrology, Number of Road Hazards, Magnitude of Road Hazards, Residential and Non-Residential Building Hazards, Total Impervious Area, Directly Connected Impervious Area
Start with "3", then add or subtract:	
+1	Worsening Condition from Existing to Future without Projects Scenario
+1	Future without Projects SW Ranking Score 2.5
0	Future without Projects SW Ranking Score 5
-1	Future without Projects SW Ranking Score 7.5
-2	Future without Projects SW Ranking Score 10
+1	Great Benefit
0	Some Potential Benefit
-1	Minimal/No Benefit

For the indicators with future without projects data, listed in Table 3, consideration of the expected change from existing condition to future without projects condition was included in the project score determination. Projects in subwatersheds that anticipate a worsening condition due to anticipated development were given an additional point to reflect the greater need of projects in the subwatershed. The hydrology indicator for a subwatershed was considered to have a worsening condition if the modeled flow per acre increased by six percent or greater. No changes were noted in the residential or non-residential building hazards indicators. The number and magnitude of road hazards was considered to have a worsening condition if the modeled flood scenarios indicated any change in the number or magnitude of road hazards. The total impervious area and directly connected impervious area indicators for a subwatershed were considered to have a worsening condition if the anticipated percentage of impervious area increased by one percent.

The best professional judgment factor was applied according to Tables 1, 2, and 3 on a project by project basis depending on the anticipated benefit of the project. Some generalizations could be made based on the project type and specific project features. For the Instream Sediment indicator, a streambank stabilization project is anticipated to have a greater benefit than a stormwater pond retrofit so the streambank stabilization projects generally receive a +1 BPJ score, while a stormwater pond retrofit may receive a 0 or -1. The stormwater pond retrofit BPJ score is based on project specific factors such incorporation of outfall improvements or energy dissipation which will likely provide a greater benefit in terms of instream sediment than pond retrofits without these features.

For the indicators listed in Tables 2 and 3 above, it is possible to arrive at a project score of 0 or 6, which are outside of the required 1-5 range. These occurrences were very infrequent, but when encountered the project scores were capped at 1 and 5.

Indicators for which the future with projects scenario could be calculated were scored based on the project's impact on the future with projects scenario. These indicators include Total Nitrogen, Total Phosphorus, and Total Suspended Solids. Preliminary quartiles were calculated based on the range of percent change in the Nichol Run and Pond Branch values from the future without projects scenario to the future with projects scenario. Final quartiles (or quintiles) may be calculated by the County based on the range of percent change in all of the county watersheds and revised scores may be applied. Tables 4, 5, and 6, depict the preliminary quartiles used for each of the referenced indicators. Quartiles were used in lieu of the recommended quintiles in order to allow an additional point of adjustment based on best professional judgment without exceeding the maximum five point score.

Table 4 Preliminary Total Nitrogen (TN) Quartiles

Percentile	% Change: Future w/out Project to Future with Project	Preliminary Project Score
0%	-26% to -4.1%	4
33%	-4% to -2.1%	3
67%	-2% to -0.1%	2
100%	0% or greater	1

Table 5 Preliminary Total Phosphorus (TP) Quartiles

Percentile	% Change: Future w/out Project to Future with Project	Preliminary Project Score
0%	-41% to -5.1%	4
33%	-5% to -2.1%	3
67%	-2% to -0.1%	2
100%	0% or greater	1

Table 6 Preliminary Total Suspended Solids (TSS) Quartiles

Percentile	% Change: Future w/out Project to Future with Project	Preliminary Project Score
0%	-64% to -10.1%	4
33%	-10% to -4.1%	3
67%	-4% to -0.1%	2
100%	0% or greater	1

In some cases, the existing and future condition without projects water quality scores (STEPL model) were modeled inaccurately. The treatment by some ponds was not included in the model because the pond was either not included in the County's stormwater network and not identified until candidate project field reconnaissance, or the drainage area to the pond did not contain any parcels included in the County's controlled parcels GIS layer. The treatment of some other areas was overestimated in the model either because the parcels were included in the County's controlled parcels GIS layer, but not located within the drainage area of an existing stormwater management facility, or because candidate project field reconnaissance indicated that an existing pond provided less treatment than was originally modeled. Best professional judgment was used to adjust the project scores for total nitrogen, total phosphorus, and total suspended solids based on whether the project benefit was accurately modeled or if the project benefits were over or under estimated due to inaccuracies in the future without projects condition STEPL model. Appendix F includes the STEPL output tables including pollutant loading for future without projects condition and future with projects condition, the percent reduction of pollutant loading, preliminary project score and best professional judgment score adjustment.

Projects which were not modeled in STEPL such as stream restoration projects and road crossing improvements were given a project score for total nitrogen, total phosphorus, and total suspended solids using best professional judgment based on the project's likely ability to affect each indicator.

Since every indicator is not likely to be impacted by some project types, a matrix was developed to show which project types are likely to affect which subwatershed ranking indicators. This way, the indicators evaluated for each project were targeted to those which the project was most likely to affect. This matrix is depicted in Tables 7 and 8, below.

While most projects conform to the matrix depicted in Tables 7 and 8, some projects consist of multi-faceted components that consist of a variety of project types, such as a stormwater pond retrofit that includes improvements to the pond's outfall and repairing streambank erosion below the outfall. For these situations, additional indicators may have been evaluated in order to more accurately represent the scale and variety of project benefits.

Table 7 Impact Indicator Scores Evaluated by Project Type

Individual Impact Indicator Scores	**Stream Restoration** (Type Code 2)	**Outfall Improvement** (Type Code 7)	**Culvert Retrofit** (Type Code 4)	**Flood Protection/ Mitigation** (Type 6)	**New/Retrofit BMP/LID** (Type Code 5)	**New Stormwater Pond** (Type Code 1)	**Stormwater Pond Retrofit** (Type Code 1)	**Area-wide Drainage Improvement** (Type 3)
Benthic Communities	X	X						X
Fish Communities	X	X						X
Aquatic Habitat	X	X	X					X
Channel Morphology (CEM)	X			X				X
Instream Sediment	X	X				X	X	X
Hydrology	X	X	X	X	X	X	X	X
Number of Road Hazards			X	X				
Magnitude of Road Hazards			X	X				
Residential Building Hazards			X	X				
Non-Residential Building Hazards			X	X				
Flood Complaints								
RPA Riparian Habitat	X							X
Headwater Riparian Habitat	X							X
Wetland Habitat	X				X	X	X	X
Terrestrial Forested Habitat								
E. coli								
TSS Concentration (STEPL)	X	X	X		X	X	X	X
TN Concentration (STEPL)		X	X		X	X	X	X
TP Concentration (STEPL)	X	X	X		X	X	X	X
X – Effects on these indicators were scored and evaluated								

Table 8 Source Indicator Scores Evaluated by Project Type

Individual Impact Indicator Scores	**Stream Restoration** (Type Code 2)	**Outfall Improvement** (Type Code 7)	**Culvert Retrofit** (Type Code 4)	**Flood Protection/ Mitigation** (Type 6)	**New/Retrofit BMP/LID** (Type Code 5)	**New Stormwater Pond** (Type Code 1)	**Stormwater Pond Retrofit** (Type Code 1)	**Area-wide Drainage Improvement** (Type 3)
Channelized/Piped Streams	X	X	X	X		X		X
Directly Connected Impervious Area (DCIA)				X	X	X	X	X
Total Impervious Area				X	X			X
Stormwater Outfalls	X	X		X	X	X	X	X
Sanitary Sewer Crossings								
Streambank Buffer Deficiency	X							X
TSS Concentration (STEPL)	X	X	X		X	X	X	X
TN Concentration (STEPL)	X	X	X		X	X	X	X
TP Concentration (STEPL)	X	X	X		X	X	X	X
X – Effects on these indicators were scored and evaluated								

The RPA Riparian Habitat and Headwater Riparian Habitat indicators will only be impacted by a project if the project is located within the RPA area or headwater area, respectively. Therefore, a project was only evaluated for whichever riparian area it was located within, but not for both headwater and RPA riparian habitat indicators.

Flood complaints were not considered for any project type due to the inconsistency of this data. Terrestrial forested habitat and sanitary sewer crossings are unlikely to be significantly affected by any of the structural projects; therefore, these indicators were not considered in project ranking. The scarcity of E. coli data and the difficulty in determining likely project benefits eliminated this indicator from consideration in project ranking.

Preliminary project scores based on subwatershed ranking indicator scores were calculating by taking an average of all of the individual indicator scores which were evaluated for each project. Appendix A contains a summary of the preliminary project scores based on subwatershed ranking impact indicator scores. A summary of preliminary project scores based on subwatershed ranking source indicator scores are located in Appendix B.

Location within Priority Subwatersheds

Results of the existing condition SW Ranking, updated in August 2009 (directory: Task2deliverables_Nichol-Pond/SW Ranking/Existing_080709/) were used to evaluate the "location within priority subwatersheds" project prioritization factor. Generally, candidate projects located within poor quality subwatersheds have the potential to provide a greater overall impact than a project located within a high quality subwatershed. In order to quantify this difference, preliminary quintiles were calculated based on existing condition watershed impact composite score for Nichol Run and Pond Branch subwatersheds. Final quintiles may be calculated by the County based on the range of existing condition watershed impact composite scores in all of the county watersheds and revised scores may be applied. Table 9 depicts the preliminary quintiles used for Nichol Run and Pond Branch watershed. A complete list of project scores based on these priority subwatershed scores is located in Appendix C.

Table 9 Preliminary Watershed Impact Composite Score Quintiles

Percentile	Watershed Impact Composite Scores	Preliminary Project Score
80%	6.59 to 10	1
60%	6.51 to 6.58	2
40%	6.40 to 6.50	3
20%	6.17 to 6.39	4
0%	5.90 to 6.16	5

Figures 1 and 2 overlay the 0-25 year proposed candidate projects on the existing condition SW Ranking results.

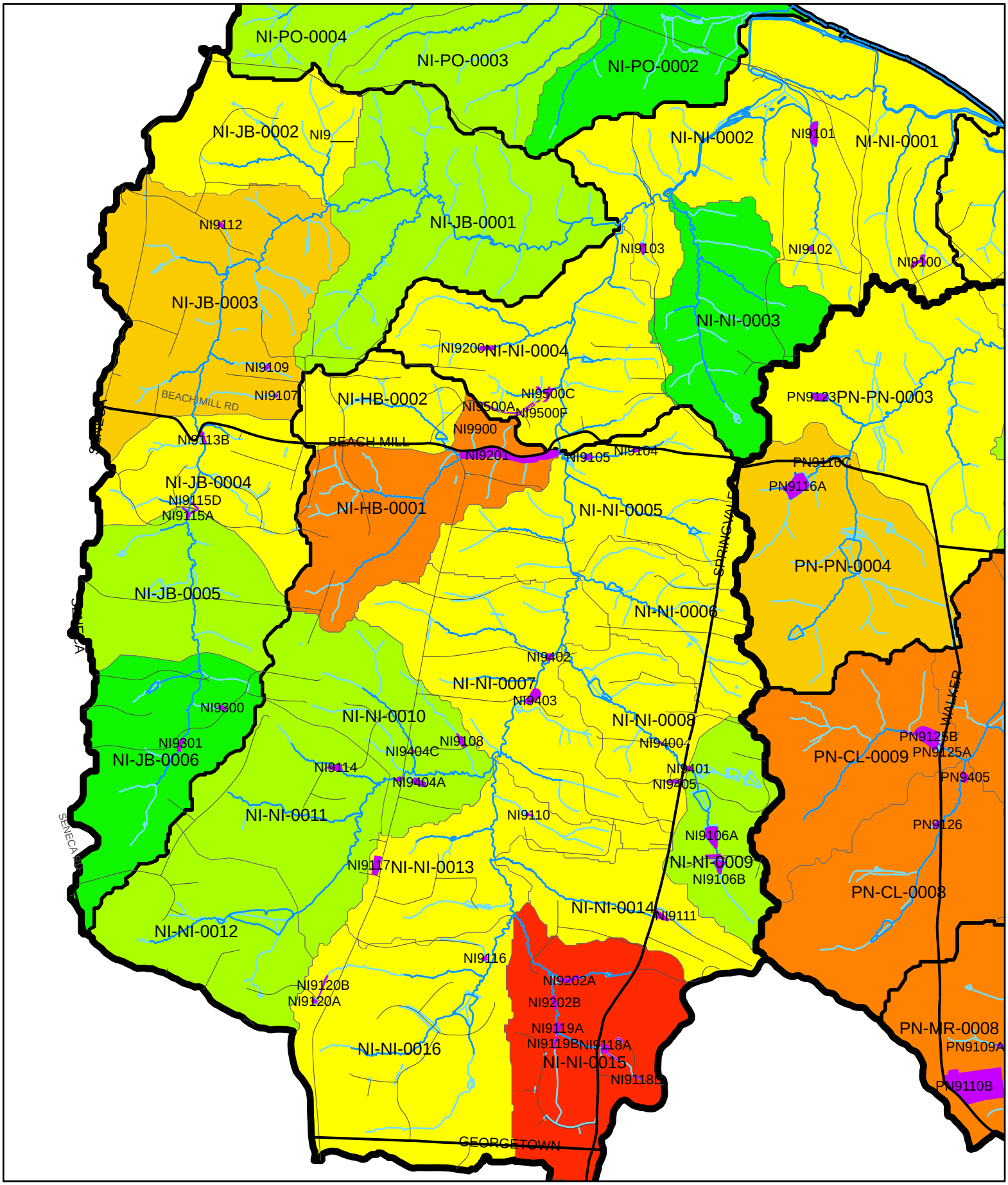

FIGURE 1

Nichol Run
0-25 Year Projects

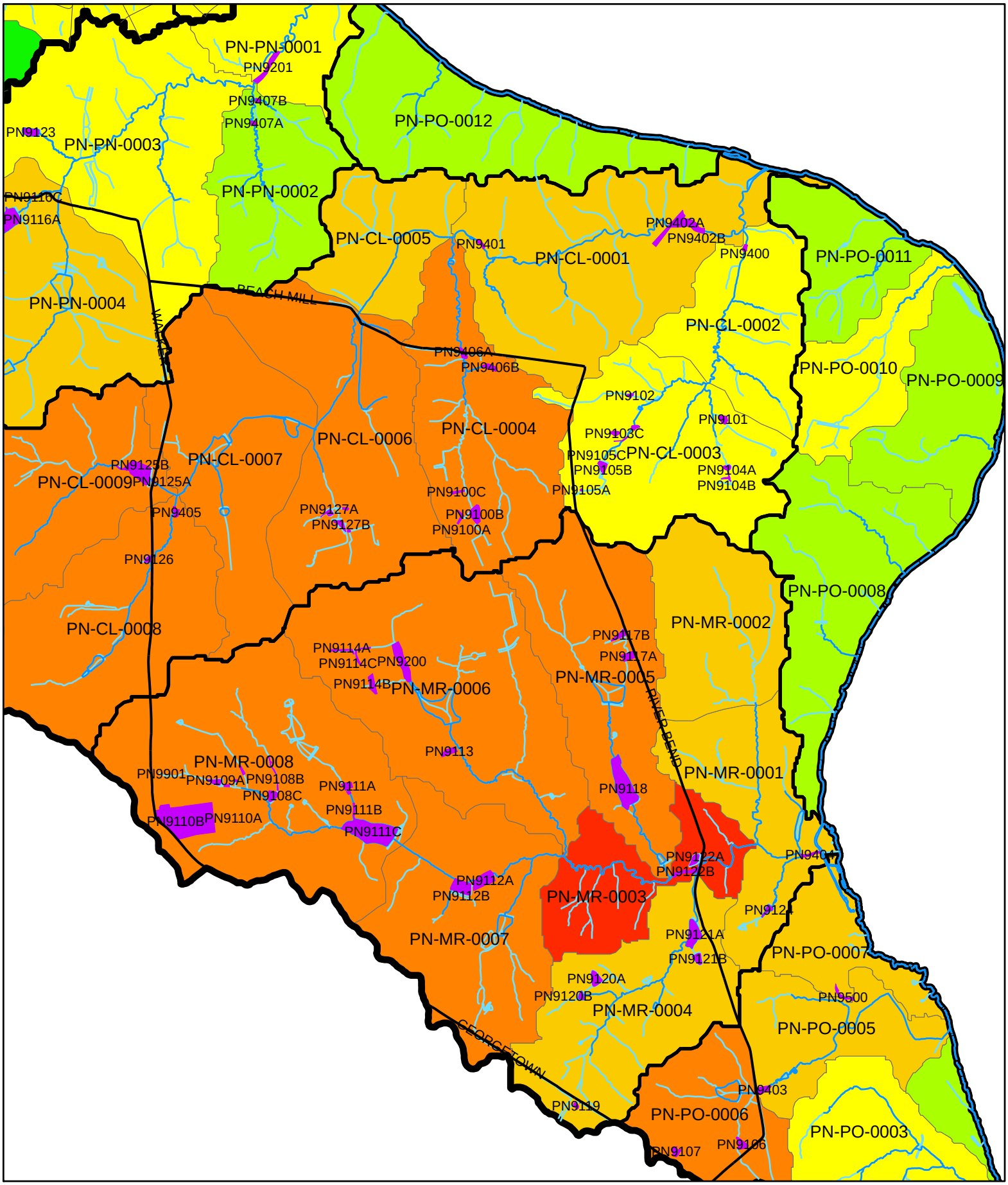

FIGURE 2

Pond Branch
0-25 Year Projects

Sequencing
Projects upstream relative to other projects should be completed prior to projects located downstream because upstream projects will provide protection for future downstream projects and also mitigate sources and stressors that cause cumulative impacts downstream. Therefore, projects in headwater areas should be considered the highest priority and receive a higher project score.

Subwatersheds were numbered according to relative stream order, see Figure 3. Headwater subwatersheds were given an order of one with higher numbered subwatersheds downstream. Once the subwatersheds were ordered, quintiles were calculated to determine project scores for each subwatershed. The subwatershed sequencing quintiles are depicted in Table 10, below.

Table 10 Subwatershed Sequencing Quintiles

Percentile	Subwatershed Order	Preliminary Project Score
80%	4 to 7	1
60%	2 to 3	3
0% - 40%	1	5

A subwatershed may have headwater streams even if it receives flow from an upstream subwatershed. Candidate project NI9102 in Figure 3 Inset is an example of this; the project is located in NI-NI-0002 which was given a sequencing order of 7, however, NI9102 is located in a headwaters area so it should be scored accordingly. Project scores for projects located in these headwater areas, such as candidate project NI9102, were adjusted manually on a case by case basis. A complete listing of subwatershed order and project scores is provided in Appendix D.

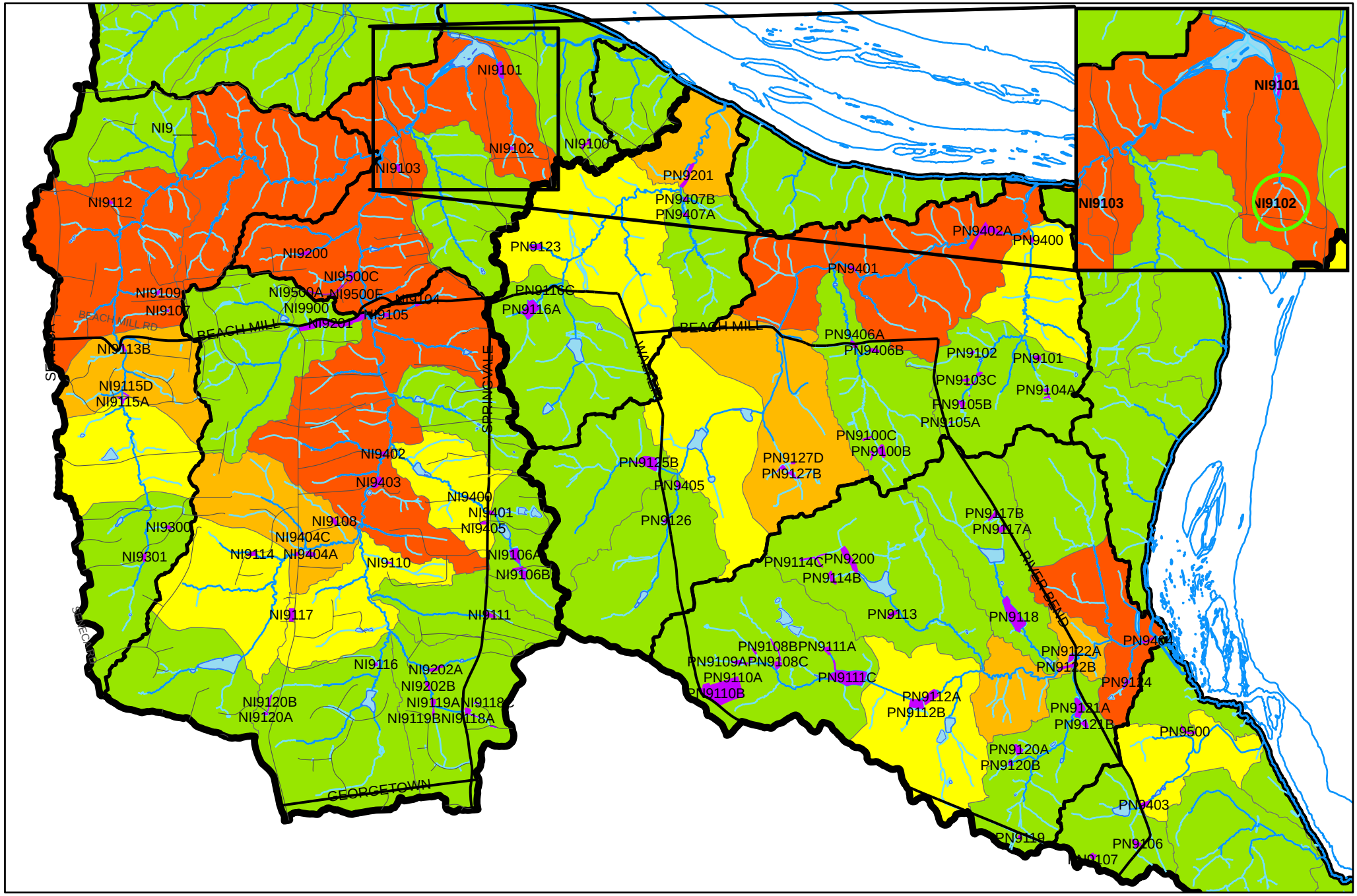

FIGURE 3

Sequencing Order
0-25 Year Projects

Implementability

Less complex projects and projects without land acquisition requirements will be easier to implement and are given higher scores accordingly. Those projects which are located on County property or retrofits of County-maintained stormwater facilities were scored higher than projects on private parcels and those with multiple landowners. Implementability was determined in three steps:

1) Analysis of property owner – projects were assigned points based on property ownership. County-owned parcels were assigned a point value of 1; Homeowners Associations, 2; Churches and Commercial parcels, 3; and private parcels, 4. The total point value for each project area was summed so that a greater number of owners resulted in a greater point value and indicated a greater difficulty of implementation. This point value was divided by 2 if the project involved an existing County-maintained facility regardless of land owner, since existing County-maintained facilities have existing maintenance agreements in place. Table 11 shows some examples of this step in the Implementability analysis.

Table 11 Analysis of Property Ownership for Implementability

Property Owner(s)	Point Value	Existing County Facility?	Adjusted Point Value
1 County Parcel	1	Yes	0.5
1 County Parcel	1	No	1
1 HOA Parcel	2	Yes	1
1 Commercial or Church Parcel	3	Yes	1.5
1 HOA Parcel	2	No	2
1 Private Parcel	4	Yes	2
1 Commercial or Church Parcel	3	No	3
1 Commercial or Church Parcel	6	Yes	3
1 Private Parcel	4	No	4
3 Private Parcels	12	Yes	6
3 Private Parcels	12	No	12

2) Quintiles were established to produce a score based on parcel ownership. Quintiles for Implementability are depicted in Table 12. The quintiles were established so that County-maintained facilities on County-owned land were scored highest with the greatest ease of implementability, and private parcels without County-maintained facilities were scored lowest.

Table 12 Implementability Score Quintiles

Percentile	Adjusted Point Values Based on Ownership	Preliminary Project Score
0%	1-3	5
20%	4-6	4
40%	7	3
60%	8-15	2
80%	16 or greater	1

3) Final adjustments were made using best professional judgment based on the overall complexity and implementability of the project. In some cases, County-maintained facilities are located on parcels with multiple owner records in the ownership database provided by the County, this resulted in inflated initial point values that were not adequately reduced by the County-maintained facility division factor. Several BPJ adjustments were made to adjust this anomaly.

Implementability scores for each project are located in Appendix E.

Initial Ranking Composite Score
An initial ranking composite score was calculated for each project based on the weighted average of the five project scores described above.

1) Effect on Subwatershed Ranking Watershed Impact Indicators (30%)
2) Effect on Subwatershed Ranking Watershed Source Indicators (30%)
3) Location within Priority Subwatersheds (10%)
4) Sequencing (20%)
5) Implementability (10%)

The initial ranking composite score, or prioritization score is used to determine the overall rank of each project. Projects are ranked from one to 70 for Nichol Run and Pond Branch according to the prioritization score. The least beneficial projects may drop from the 0-25 year implementation plan and the top 35 projects will be promoted to the 10-year implementation plan.

A summary of the five project scores and the initial ranking composite score for each candidate project is provided in Table 13.

Following the fourth Watershed Advisory Group (WAG) meeting, comments from WAG members will be compiled and the initial ranking composite scores will be adjusted based on the comments received. Project ranks will be updated based on the revised composite scores and initial 10-year and 25-year implementation plans will be organized using the revised project ranks.

Once approved by the County, each of the projects in the 10-year implementation plan will be further evaluated with additional hydrologic modeling and details for each project will be compiled onto a project fact sheet. The project fact sheets will contain geographical information, a description of the project, potential benefits, project design considerations, a map of the project area and an estimated project cost.

Table 13 Summary of Individual Project Scores and Initial Ranking Composite Score

Subwatershed	Project No.	Watershed Impact Indicators	Watershed Source Indicators	Location within Priority Subwatersheds	Sequencing	Implementability	Initial Ranking Composite Score	Project Rank
NI-NI-0001	NI9100	3.00	2.17	1.00	5.00	2.00	2.85	55
NI-NI-0002	NI9101	3.83	2.83	2.00	3.00	5.00	3.30	30
NI-NI-0002	NI9102	3.17	2.33	2.00	5.00	4.00	3.25	37
NI-NI-0002	NI9103	2.67	1.83	2.00	5.00	5.00	3.05	48
NI-NI-0005	NI9104	3.50	2.33	5.00	1.00	4.00	2.85	55
NI-NI-0005	NI9105	3.50	2.33	5.00	1.00	4.00	2.85	55

Subwatershed	Project No.	Watershed Impact Indicators	Watershed Source Indicators	Location within Priority Subwatersheds	Sequencing	Implementability	Initial Ranking Composite Score	Project Rank
NI-NI-0009	NI9106	3.67	3.50	1.00	5.00	1.00	3.35	29
NI-JB-0003	NI9107	2.33	1.67	5.00	5.00	4.00	3.10	45
NI-NI-0010	NI9108	4.00	3.00	1.00	3.00	4.00	3.20	39
NI-JB-0003	NI9109	2.67	1.67	5.00	5.00	2.00	3.00	50
NI-NI-0013	NI9110	3.50	2.50	1.00	4.00	4.00	3.10	45
NI-NI-0014	NI9111	3.83	3.17	2.00	5.00	4.00	3.70	13
NI-JB-0003	NI9112	3.00	1.67	5.00	5.00	4.00	3.30	31
NI-JB-0004	NI9113	4.00	4.00	5.00	3.00	2.00	3.70	12
NI-NI-0011	NI9114	3.83	3.00	1.00	4.00	5.00	3.45	26
NI-JB-0005	NI9115	3.17	2.67	1.00	3.00	2.00	2.65	61
NI-NI-0016	NI9116	2.33	2.50	3.00	5.00	4.00	3.15	43
NI-NI-0013	NI9117	2.83	2.17	1.00	5.00	2.00	2.80	59
NI-NI-0015	NI9118	3.50	3.50	4.00	5.00	1.00	3.60	17
NI-NI-0015	NI9119	4.33	3.83	4.00	5.00	4.00	4.25	1
NI-NI-0016	NI9120	2.67	2.83	3.00	5.00	2.00	3.15	42
NI-NI-0004	NI9200	3.25	2.33	4.00	3.00	2.00	2.88	54
NI-HB-0001	NI9201	2.83	2.00	1.00	4.00	1.00	2.45	66
NI-NI-0015	NI9202	3.50	3.17	4.00	5.00	2.00	3.60	17
NI-JB-0006	NI9300	2.58	2.50	1.00	5.00	2.00	2.83	58
NI-JB-0006	NI9301	2.58	2.13	1.00	5.00	2.00	2.71	60
NI-NI-0008	NI9400	2.11	1.25	5.00	3.00	2.00	2.31	68
NI-NI-0009	NI9401	3.11	3.50	1.00	5.00	4.00	3.48	25
NI-NI-0007	NI9402	3.22	3.25	2.00	1.00	2.00	2.54	64
NI-NI-0007	NI9403	2.44	2.25	2.00	1.00	5.00	2.31	69
NI-NI-0010	NI9404	2.67	2.00	1.00	3.00	2.00	2.30	70
NI-NI-0008	NI9405	2.11	1.50	5.00	3.00	4.00	2.58	63
NI-NI-0004	NI9500	3.33	3.00	4.00	1.00	1.00	2.60	62
PN-CL-0004	PN9100	3.67	3.33	3.00	5.00	1.00	3.50	24
PN-CL-0003	PN9101	3.83	3.33	3.00	5.00	2.00	3.65	15
PN-CL-0003	PN9102	3.17	2.50	3.00	5.00	2.00	3.20	38
PN-CL-0003	PN9103	3.67	3.17	3.00	5.00	2.00	3.55	19
PN-CL-0003	PN9104	3.50	3.33	3.00	5.00	4.00	3.75	10
PN-CL-0003	PN9105	3.33	3.33	3.00	5.00	2.00	3.50	22
PN-PO-0006	PN9106	3.17	2.00	1.00	5.00	5.00	3.15	43
PN-PO-0006	PN9107	3.17	2.33	1.00	5.00	5.00	3.25	36

Subwatershed	Project No.	Watershed Impact Indicators	Watershed Source Indicators	Location within Priority Subwatersheds	Sequencing	Implementability	Initial Ranking Composite Score	Project Rank
PN-MR-0008	PN9108	4.17	4.17	3.00	5.00	2.00	4.00	3
PN-MR-0008	PN9109	4.17	4.00	3.00	5.00	1.00	3.85	8
PN-MR-0008	PN9110	3.17	3.00	3.00	5.00	5.00	3.65	16
PN-MR-0008	PN9111	4.50	4.00	3.00	5.00	1.00	3.95	5
PN-MR-0007	PN9112	4.50	3.17	4.00	3.00	4.00	3.70	13
PN-MR-0006	PN9113	4.17	3.83	1.00	5.00	4.00	3.90	7
PN-MR-0006	PN9114	3.33	3.00	1.00	5.00	3.00	3.30	31
PN-PN-0004	PN9116	4.33	3.67	2.00	5.00	4.00	4.00	4
PN-MR-0005	PN9117	4.00	4.00	3.00	5.00	2.00	3.90	6
PN-MR-0005	PN9118	4.17	4.00	3.00	5.00	1.00	3.85	8
PN-MR-0004	PN9119	3.50	2.17	3.00	5.00	5.00	3.50	22
PN-MR-0004	PN9120	4.17	2.67	3.00	5.00	2.00	3.55	19
PN-MR-0004	PN9121	4.33	2.67	3.00	4.00	1.00	3.30	34
PN-MR-0003	PN9122	3.67	2.50	5.00	5.00	4.00	3.75	10
PN-PN-0003	PN9123	3.17	3.00	3.00	5.00	4.00	3.55	19
PN-MR-0001	PN9124	4.00	2.50	3.00	5.00	2.00	3.45	26
PN-CL-0009	PN9125	4.33	3.00	1.00	4.00	2.00	3.30	31
PN-CL-0008	PN9126	4.33	3.33	1.00	4.00	2.00	3.40	28
PN-CL-0006	PN9127	4.00	3.50	5.00	5.00	3.00	4.05	2
PN-MR-0006	PN9200	3.25	2.17	1.00	5.00	2.00	2.93	52
PN-PN-0001	PN9201	3.11	2.50	5.00	3.00	1.00	2.88	53
PN-CL-0002	PN9400	3.11	3.50	4.00	3.00	2.00	3.18	41
PN-CL-0001	PN9401	3.22	3.00	5.00	1.00	4.00	2.97	51
PN-CL-0001	PN9402	3.56	3.50	5.00	1.00	2.00	3.02	49
PN-PO-0005	PN9403	2.44	3.00	1.00	3.00	2.00	2.53	65
PN-MR-0001	PN9404	2.33	1.50	3.00	1.00	5.00	2.15	71
PN-CL-0008	PN9405	3.11	3.50	1.00	4.00	2.00	3.08	47
PN-CL-0004	PN9406	3.00	4.00	3.00	4.00	1.00	3.30	34
PN-PN-0002	PN9407	2.00	1.50	3.00	4.00	2.00	2.35	67
PN-PO-0007	PN9500	3.17	2.14	1.00	5.00	5.00	3.19	40

Task 3.5 Evaluation and Ranking Candidate Non-Structural Projects

Viable non-structural projects were given a six or seven digit project number according to the following numbering convention: XX9YZZ; where XX is the 2-digit watershed code, Y is the project type code, and ZZ is a 2-digit numbering code starting with 00 at the lowest point in the watershed. The project type code was not defined for non-structural projects; therefore, a code of '9' was used for non-structural projects. An additional seventh letter is used for any project with multiple subprojects, such as buffer restoration in several disconnected locations.

Non-structural projects are likely to be implemented through existing Fairfax County program, such as the buffer program and policy/outreach mandates. Table 14 contains a description of each of the viable non-structural projects for Nichol Run and Pond Branch watersheds.

Table 14 Non-Structural Projects

Subwatershed	Project No.	Project Description
NI-JB-0002	NI9900	Riparian buffer restoration
NI-NI-0002	NI9901	Preserve OS and riparian buffers with conservation easement
NI-HB-0001	NI9902A	Stop mowing gas easement, plant wildflower meadow since location is highly visible
NI-NI-0015	NI9902B	Preserve open space and riparian buffer with conservation easements
NI-NI-0016	NI9902C	Preserve open space and riparian buffer with conservation easements
PN-PN-0004	PN9900	Preserve open space area w/ conservation easement and restore riparian buffer where needed
PN-PN-0001	PN9901A	Targeted Rain Barrel Program @ Deepwoods Hollow Subdivision
PN-PN-0002	PN9901B	Targeted Rain Barrel Program @ Riverbend Knolls & Riverbend Farms Subdivisions
PN-PN-0003	PN9901C	Targeted Rain Barrel Program @ Merryelle Acres Subdivision and along Beach Mill Road
PN-PN-0003	PN9901D	Targeted Rain Barrel Program @ Falcon Ridge Subdivision
PN-CL-0005	PN9902A	Preserve open space area w/ conservation easement and restore riparian buffer where needed
PN-CL-0001	PN9902B	Preserve forested OS in riparian buffer through conservation easement
PN-CL-0002	PN9902C	Preserve forested OS in riparian buffer through conservation easement
PN-CL-0009	PN9902D	Preserve open space area w/ conservation easement
PN-CL-0005	PN9903A	Targeted Rain Barrel Program @ Beach Mill Farms & Club View Ridge Subdivision
PN-CL-0006	PN9903B	Targeted Rain Barrel Program @ Eagon Hills Subdivision, Dogwood Hills & Riverbend Estates and along Club View Drive
PN-CL-0008	PN9903C	Targeted Rain Barrel Program @ Walker Hill Estates, & Arnon Meadow Subdivision
PN-MR-0006	PN9904A	Preserve open space area w/ conservation easement and restore riparian buffer

Subwatershed	Project No.	Project Description
PN-MR-0007	PN9904B	Preserve and restore forested OS in riparian buffer (RPA) through conservation easement
PN-MR-0004	PN9904C	Preserve open space area w/ conservation easement and restore riparian buffer within riparian buffer
PN-MR-0008	PN9904D	Riparian Buffer Restoration
PN-MR-0005	PN9904E	Riparian Buffer Restoration
PN-MR-0008	PN9904F	Restore riparian buffer along stream banks on property
PN-MR-0006	PN9904G	Preserve forested OS in riparian buffer through conservation easement
PN-MR-0003	PN9904H	Riparian Buffer restoration
PN-MR-0008	PN9904I	vegetate banks & stabilize erosion, disconnect roof leaders
PN-MR-0001/3/4	PN9905A	Targeted Rain Barrel Program @ Jackson Hills Development & Cornwell Farm Development
PN-MR-0002	PN9905B	Targeted Rain Barrel Program @ Weant Subdivision, Washington Great Falls Survey, Great Falls Estates Sec. 2, Maria Avenue & Deer Park Subdivisions
PN-MR-0005	PN9905C	Targeted Rain Barrel Program @ Riverside Meadows
PN-MR-0006	PN9905D	Targeted Rain Barrel Program @ Laylin Family Trust, Arnon Ridge
PN-MR-0007	PN9905E	Targeted Rain Barrel Program @ Cornwell Farm & Chamborley Developments
PN-MR-0008	PN9905F	Targeted Rain Barrel Program and Homeowner's education (Re: landscaping/headwater riparian buffers) @ John W. Hanes Jr. Gunnell Run Farm, Deerfield Pond, & Deerfield Farm Subdivisions
PN-MR-0003	PN9906A	Remove obstructions @ SPA points PNMR5-2-O8 to O10
PN-MR-0003	PN9906B	Remove obstructions @ SPA points PNMR5-2-O5
PN-MR-0004	PN9906C	Remove obstructions @ SPA points PNMR004-T002

Appendix A

Preliminary Project Scores
Based on Subwatershed Ranking
Impact Indicator Scores

IMPACT INDICATOR SCORES

Project Number	Project Type	Subwatershed	Benthic	Fish Comm	Aquatic Habitat	Channel Morph	Instream Sediment	Hydrology	No Road Hazard	Magnitude Rd Hazard	Res. Bldg Haz	Non-Res Bldg Haz	Flood Complaints	Prot. RPA Riparian	Prot. Headwater Riparian	Prot. Wetl.	Prot. Nat Habitat	TSS	TN	TP	Ecoli	Sum	Score
NI9100	1	NI-NI-0001	-	-	-	-	3	2	-	-	-	-	-	-	-	4	-	3	3	3	-	18	3.00
NI9101	1	NI-NI-0002	-	-	-	-	3	3	-	-	-	-	-	-	-	5	-	4	4	4	-	23	3.83
NI9102	1	NI-NI-0002	-	-	-	-	2	3	-	-	-	-	-	-	-	5	-	3	3	3	-	19	3.17
NI9103	1	NI-NI-0002	-	-	-	-	2	3	-	-	-	-	-	-	-	4	-	2	2	3	-	16	2.67
NI9104	1	NI-NI-0005	-	-	-	-	4	3	-	-	-	-	-	-	-	5	-	3	3	3	-	21	3.50
NI9105	1	NI-NI-0005	-	-	-	-	4	3	-	-	-	-	-	-	-	5	-	3	3	3	-	21	3.50
NI9106	1	NI-NI-0009	-	-	-	-	1	4	-	-	-	-	-	-	-	5	-	4	4	4	-	22	3.67
NI9107	1	NI-JB-0003	-	-	-	-	1	3	-	-	-	-	-	-	-	4	-	2	2	2	-	14	2.33
NI9108	1	NI-NI-0010	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	3	3	4	-	24	4.00
NI9109	1	NI-JB-0003	-	-	-	-	2	4	-	-	-	-	-	-	-	4	-	2	2	2	-	16	2.67
NI9110	1	NI-NI-0013	-	-	-	-	3	4	-	-	-	-	-	-	-	5	-	3	3	3	-	21	3.50
NI9111	1	NI-NI-0014	-	-	-	-	1	5	-	-	-	-	-	-	-	5	-	4	4	4	-	23	3.83
NI9112	1	NI-JB-0003	-	-	-	-	3	5	-	-	-	-	-	-	-	4	-	2	2	2	-	18	3.00
NI9113	1	NI-JB-0004	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	4	4	3	-	24	4.00
NI9114	1	NI-NI-0011	-	-	-	-	3	3	-	-	-	-	-	-	-	5	-	4	4	4	-	23	3.83
NI9115	1	NI-JB-0005	-	-	-	-	2	3	-	-	-	-	-	-	-	5	-	3	3	3	-	19	3.17
NI9116	1	NI-NI-0016	-	-	-	-	1	5	-	-	-	-	-	-	-	5	-	1	1	1	-	14	2.33
NI9117	1	NI-NI-0013	-	-	-	-	2	4	-	-	-	-	-	-	-	5	-	2	2	2	-	17	2.83
NI9118	1	NI-NI-0015	-	-	-	-	2	5	-	-	-	-	-	-	-	5	-	3	3	3	-	21	3.50
NI9119	1	NI-NI-0015	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	4	4	4	-	26	4.33
NI9120	1	NI-NI-0016	-	-	-	-	1	4	-	-	-	-	-	-	-	5	-	2	2	2	-	16	2.67
NI9200	2	NI-NI-0004	3	3	3	2	4	3	-	-	-	-	-	3	3	5	-	4	3	3	-	39	3.25
NI9201	2	NI-HB-0001	3	3	3	2	4	3	-	-	-	-	-	3	2	4	-	3	2	2	-	34	2.83
NI9202	2	NI-NI-0015	3	3	5	2	4	3	-	-	-	-	-	3	4	5	-	4	3	3	-	42	3.50
NI9300	3	NI-JB-0006	2	3	3	1	2	3	-	-	-	-	-	2	3	5	-	3	2	2	-	31	2.58

IMPACT INDICATOR SCORES

Project Number	Project Type	Subwatershed	Benthic	Fish Comm	Aquatic Habitat	Channel Morph	Instream Sediment	Hydrology	No Road Hazard	Magnitude Rd Hazard	Res. Bldg Haz	Non-Res Bldg Haz	Flood Complaints	Prot. RPA Riparian	Prot. Headwater Riparian	Prot. Wetl.	Prot. Nat Habitat	TSS	TN	TP	Ecoli	Sum	Score
NI9301	3	NI-JB-0006	3	3	3	2	3	3	-	-	-	-	-	3	2	5	-	2	1	1	-	31	2.58
NI9400	4	NI-NI-0008	-	-	3	-	-	3	5	3	1	1	-	-	-	-	-	1	1	1	-	19	2.11
NI9401	4	NI-NI-0009	-	-	5	-	-	5	2	2	1	1	-	-	-	-	-	4	4	4	-	28	3.11
NI9402	4	NI-NI-0007	-	-	3	-	-	4	3	5	1	1	-	-	-	-	-	4	4	4	-	29	3.22
NI9403	4	NI-NI-0007	-	-	3	-	-	2	3	5	1	1	-	-	-	-	-	3	2	2	-	22	2.44
NI9404	4	NI-NI-0010	-	-	3	-	-	5	4	4	1	1	-	-	-	-	-	2	2	2	-	24	2.67
NI9405	4	NI-NI-0008	-	-	2	-	-	3	5	3	1	1	-	-	-	-	-	2	1	1	-	19	2.11
NI9500	5	NI-NI-0004	-	-	-	-	2	3	-	-	-	-	-	-	-	5	-	3	3	4	-	20	3.33
PN9100	1	PN-CL-0004	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	3	3	3	-	22	3.67
PN9101	1	PN-CL-0003	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	3	3	3	-	23	3.83
PN9102	1	PN-CL-0003	-	-	-	-	3	4	-	-	-	-	-	-	-	5	-	2	2	3	-	19	3.17
PN9103	1	PN-CL-0003	-	-	-	-	4	4	-	-	-	-	-	-	-	5	-	3	3	3	-	22	3.67
PN9104	1	PN-CL-0003	-	-	-	-	2	5	-	-	-	-	-	-	-	5	-	3	3	3	-	21	3.50
PN9105	1	PN-CL-0003	-	-	-	-	2	4	-	-	-	-	-	-	-	5	-	3	3	3	-	20	3.33
PN9106	1	PN-PO-0006	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	2	2	2	-	19	3.17
PN9107	1	PN-PO-0006	-	-	-	-	2	5	-	-	-	-	-	-	-	5	-	2	2	3	-	19	3.17
PN9108	1	PN-MR-0008	-	-	-	-	2	5	-	-	-	-	-	-	-	5	-	4	4	5	-	25	4.17
PN9109	1	PN-MR-0008	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	4	4	4	-	25	4.17
PN9110	1	PN-MR-0008	-	-	-	-	2	5	-	-	-	-	-	-	-	5	-	2	2	3	-	19	3.17
PN9111	1	PN-MR-0008	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	4	4	5	-	27	4.50
PN9112	1	PN-MR-0007	-	-	-	-	5	5	-	-	-	-	-	-	-	5	-	4	4	4	-	27	4.50
PN9113	1	PN-MR-0006	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	4	4	4	-	25	4.17
PN9114	1	PN-MR-0006	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	2	2	3	-	20	3.33
PN9116	1	PN-PN-0004	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	4	4	4	-	26	4.33
PN9117	1	PN-MR-0005	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	4	3	4	-	24	4.00

IMPACT INDICATOR SCORES

Project Number	Project Type	Subwatershed	Benthic	Fish Comm	Aquatic Habitat	Channel Morph	Instream Sediment	Hydrology	No Road Hazard	Magnitude Rd Hazard	Res. Bldg Haz	Non-Res Bldg Haz	Flood Complaints	Prot. RPA Riparian	Prot. Headwater Riparian	Prot. Wetl.	Prot. Nat Habitat	TSS	TN	TP	Ecoli	Sum	Score
PN9118	1	PN-MR-0005	-	-	-	-	4	4	-	-	-	-	-	-	-	4	-	4	4	5	-	25	4.17
PN9119	1	PN-MR-0004	-	-	-	-	2	5	-	-	-	-	-	-	-	5	-	3	3	3	-	21	3.50
PN9120	1	PN-MR-0004	-	-	-	-	3	5	-	-	-	-	-	-	-	5	-	4	4	4	-	25	4.17
PN9121	1	PN-MR-0004	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	4	4	4	-	26	4.33
PN9122	1	PN-MR-0003	-	-	-	-	4	3	-	-	-	-	-	-	-	5	-	3	3	4	-	22	3.67
PN9123	1	PN-PN-0003	-	-	-	-	2	3	-	-	-	-	-	-	-	5	-	3	3	3	-	19	3.17
PN9124	1	PN-MR-0001	-	-	-	-	3	4	-	-	-	-	-	-	-	5	-	4	4	4	-	24	4.00
PN9125	1	PN-CL-0009	-	-	-	-	5	4	-	-	-	-	-	-	-	5	-	4	4	4	-	26	4.33
PN9126	1	PN-CL-0008	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	4	4	4	-	26	4.33
PN9127	1	PN-CL-0006	-	-	-	-	4	5	-	-	-	-	-	-	-	5	-	3	3	4	-	24	4.00
PN9200	2	PN-MR-0006	4	5	5	2	5	4	-	-	-	-	-	3	3	4	-	2	1	1	-	39	3.25
PN9201	2	PN-PN-0001	-	-	-	2	3	3	-	-	-	-	-	3	2	5	-	4	3	3	-	28	3.11
PN9400	4	PN-CL-0002	-	-	4	-	-	4	3	3	1	1	-	-	-	-	-	4	4	4	-	28	3.11
PN9401	4	PN-CL-0001	-	-	4	-	-	4	4	5	1	1	-	-	-	-	-	3	3	4	-	29	3.22
PN9402	4	PN-CL-0001	-	-	4	-	-	5	4	5	1	1	-	-	-	-	-	4	4	4	-	32	3.56
PN9403	4	PN-PO-0005	-	-	5	-	-	3	1	1	1	1	-	-	-	-	-	4	3	3	-	22	2.44
PN9404	4	PN-MR-0001	-	-	3	-	-	3	4	5	1	1	-	-	-	-	-	2	1	1	-	21	2.33
PN9405	4	PN-CL-0008	-	-	5	-	-	5	2	2	1	1	-	-	-	-	-	4	4	4	-	28	3.11
PN9406	4	PN-CL-0004	-	-	4	-	-	5	2	2	1	1	-	-	-	-	-	4	4	4	-	27	3.00
PN9407	4	PN-PN-0002	-	-	3	-	-	5	2	2	1	1	-	-	-	-	-	2	1	1	-	18	2.00
PN9500	5	PN-PO-0007	-	-	-	-	2	4	-	-	-	-	-	-	-	5	-	2	3	3	-	19	3.17

Appendix B

Preliminary Project Scores
Based on Subwatershed Ranking
Source Indicator Scores

SOURCE INDICATOR SCORES

Project Number	Project Type	Subwatershed	Total Imp	DCIA	Stream Bank Deficient	SW Outfalls	VPDES	Total Urban Area (%)	TSS	TN	TP	Septic	Channelized Pipes/Streams	Sum	Score
NI9100	1	NI-NI-0001	-	1	-	2	-	-	3	3	3	-	1	13	2.17
NI9101	1	NI-NI-0002	-	2	-	2	-	-	4	4	4	-	1	17	2.83
NI9102	1	NI-NI-0002	-	2	-	2	-	-	3	3	3	-	1	14	2.33
NI9103	1	NI-NI-0002	-	2	-	1	-	-	2	2	3	-	1	11	1.83
NI9104	1	NI-NI-0005	-	2	-	2	-	-	3	3	3	-	1	14	2.33
NI9105	1	NI-NI-0005	-	2	-	2	-	-	3	3	3	-	1	14	2.33
NI9106	1	NI-NI-0009	-	1	-	5	-	-	4	4	4	-	3	21	3.50
NI9107	1	NI-JB-0003	-	1	-	2	-	-	2	2	2	-	1	10	1.67
NI9108	1	NI-NI-0010	-	3	-	3	-	-	3	3	4	-	2	18	3.00
NI9109	1	NI-JB-0003	-	1	-	2	-	-	2	2	2	-	1	10	1.67
NI9110	1	NI-NI-0013	-	2	-	2	-	-	3	3	3	-	2	15	2.50
NI9111	1	NI-NI-0014	-	2	-	3	-	-	4	4	4	-	2	19	3.17
NI9112	1	NI-JB-0003	-	1	-	2	-	-	2	2	2	-	1	10	1.67
NI9113	1	NI-JB-0004	-	4	-	5	-	-	4	4	3	-	4	24	4.00
NI9114	1	NI-NI-0011	-	3	-	1	-	-	4	4	4	-	2	18	3.00
NI9115	1	NI-JB-0005	-	2	-	2	-	-	3	3	3	-	3	16	2.67
NI9116	1	NI-NI-0016	-	4	-	4	-	-	1	1	1	-	4	15	2.50
NI9117	1	NI-NI-0013	-	3	-	2	-	-	2	2	2	-	2	13	2.17
NI9118	1	NI-NI-0015	-	4	-	3	-	-	3	3	3	-	5	21	3.50
NI9119	1	NI-NI-0015	-	3	-	3	-	-	4	4	4	-	5	23	3.83
NI9120	1	NI-NI-0016	-	3	-	4	-	-	2	2	2	-	4	17	2.83
NI9200	2	NI-NI-0004	-	-	1	1	-	-	4	3	3	-	2	14	2.33
NI9201	2	NI-HB-0001	-	-	2	2	-	-	3	2	2	-	1	12	2.00
NI9202	2	NI-NI-0015	-	-	2	3	-	-	4	3	3	-	4	19	3.17
NI9300	3	NI-JB-0006	2	2	1	5	-	-	3	2	2	-	3	20	2.50

SOURCE INDICATOR SCORES

Project Number	Project Type	Subwatershed	Total Imp	DCIA	Stream Bank Deficient	SW Outfalls	VPDES	Total Urban Area (%)	TSS	TN	TP	Septic	Channelized Pipes/Streams	Sum	Score
NI9301	3	NI-JB-0006	2	2	2	5	-	-	2	1	1	-	2	17	2.13
NI9400	4	NI-NI-0008	-	-	-	-	-	-	1	1	1	-	2	5	1.25
NI9401	4	NI-NI-0009	-	-	-	-	-	-	4	4	4	-	2	14	3.50
NI9402	4	NI-NI-0007	-	-	-	-	-	-	4	4	4	-	1	13	3.25
NI9403	4	NI-NI-0007	-	-	-	-	-	-	3	2	2	-	2	9	2.25
NI9404	4	NI-NI-0010	-	-	-	-	-	-	2	2	2	-	2	8	2.00
NI9405	4	NI-NI-0008	-	-	-	-	-	-	2	1	1	-	2	6	1.50
NI9500	5	NI-NI-0004	3	3	-	2	-	-	3	3	4	-	3	21	3.00
PN9100	1	PN-CL-0004	-	4	-	3	-	-	3	3	3	-	4	20	3.33
PN9101	1	PN-CL-0003	-	4	-	3	-	-	3	3	3	-	4	20	3.33
PN9102	1	PN-CL-0003	-	3	-	2	-	-	2	2	3	-	3	15	2.50
PN9103	1	PN-CL-0003	-	4	-	3	-	-	3	3	3	-	3	19	3.17
PN9104	1	PN-CL-0003	-	4	-	3	-	-	3	3	3	-	4	20	3.33
PN9105	1	PN-CL-0003	-	4	-	3	-	-	3	3	3	-	4	20	3.33
PN9106	1	PN-PO-0006	-	1	-	4	-	-	2	2	2	-	1	12	2.00
PN9107	1	PN-PO-0006	-	2	-	4	-	-	2	2	3	-	1	14	2.33
PN9108	1	PN-MR-0008	-	4	-	5	-	-	4	4	5	-	3	25	4.17
PN9109	1	PN-MR-0008	-	4	-	5	-	-	4	4	4	-	3	24	4.00
PN9110	1	PN-MR-0008	-	4	-	5	-	-	2	2	3	-	2	18	3.00
PN9111	1	PN-MR-0008	-	4	-	5	-	-	4	4	5	-	2	24	4.00
PN9112	1	PN-MR-0007	-	2	-	4	-	-	4	4	4	-	1	19	3.17
PN9113	1	PN-MR-0006	-	3	-	4	-	-	4	4	4	-	4	23	3.83
PN9114	1	PN-MR-0006	-	3	-	3	-	-	2	2	3	-	5	18	3.00
PN9116	1	PN-PN-0004	-	2	-	4	-	-	4	4	4	-	4	22	3.67
PN9117	1	PN-MR-0005	-	4	-	5	-	-	4	3	4	-	4	24	4.00

SOURCE INDICATOR SCORES

Project Number	Project Type	Subwatershed	Total Imp	DCIA	Stream Bank Deficient	SW Outfalls	VPDES	Total Urban Area (%)	TSS	TN	TP	Septic	Channelized Pipes/Streams	Sum	Score
PN9118	1	PN-MR-0005	-	3	-	5	-	-	4	4	5	-	3	24	4.00
PN9119	1	PN-MR-0004	-	1	-	2	-	-	3	3	3	-	1	13	2.17
PN9120	1	PN-MR-0004	-	1	-	2	-	-	4	4	4	-	1	16	2.67
PN9121	1	PN-MR-0004	-	1	-	2	-	-	4	4	4	-	1	16	2.67
PN9122	1	PN-MR-0003	-	1	-	3	-	-	3	3	4	-	1	15	2.50
PN9123	1	PN-PN-0003	-	3	-	3	-	-	3	3	3	-	3	18	3.00
PN9124	1	PN-MR-0001	-	1	-	1	-	-	4	4	4	-	1	15	2.50
PN9125	1	PN-CL-0009	-	2	-	2	-	-	4	4	4	-	2	18	3.00
PN9126	1	PN-CL-0008	-	2	-	4	-	-	4	4	4	-	2	20	3.33
PN9127	1	PN-CL-0006	-	4	-	3	-	-	3	3	4	-	4	21	3.50
PN9200	2	PN-MR-0006	-	-	1	4	-	-	2	1	1	-	4	13	2.17
PN9201	2	PN-PN-0001	-	-	1	2	-	-	4	3	3	-	2	15	2.50
PN9400	4	PN-CL-0002	-	-	-	-	-	-	4	4	4	-	2	14	3.50
PN9401	4	PN-CL-0001	-	-	-	-	-	-	3	3	4	-	2	12	3.00
PN9402	4	PN-CL-0001	-	-	-	-	-	-	4	4	4	-	2	14	3.50
PN9403	4	PN-PO-0005	-	-	-	-	-	-	4	3	3	-	2	12	3.00
PN9404	4	PN-MR-0001	-	-	-	-	-	-	2	1	1	-	2	6	1.50
PN9405	4	PN-CL-0008	-	-	-	-	-	-	4	4	4	-	2	14	3.50
PN9406	4	PN-CL-0004	-	-	-	-	-	-	4	4	4	-	4	16	4.00
PN9407	4	PN-PN-0002	-	-	-	-	-	-	2	1	1	-	2	6	1.50
PN9500	5	PN-PO-0007	2	3	-	1	-	-	2	3	3	-	1	15	2.14

Appendix C

Preliminary Project Scores
Based on Location within Priority Subwatersheds

Priority Subwatersheds		Future w/o Project Score	Preliminary Project Score	FXB Adjustment (+1, 0, -1)	County Adjustment (+/-)	Applied Score
Project Number	**Subwatershed**					
NI9100	NI-NI-0001	7.07	1			1
NI9101	NI-NI-0002	6.51	2			2
NI9102	NI-NI-0002	6.51	2			2
NI9103	NI-NI-0002	6.51	2			2
NI9104	NI-NI-0005	5.95	5			5
NI9105	NI-NI-0005	5.95	5			5
NI9106	NI-NI-0009	6.70	1			1
NI9107	NI-JB-0003	6.14	5			5
NI9108	NI-NI-0010	7.08	1			1
NI9109	NI-JB-0003	6.14	5			5
NI9110	NI-NI-0013	6.59	1			1
NI9111	NI-NI-0014	6.51	2			2
NI9112	NI-JB-0003	6.14	5			5
NI9113	NI-JB-0004	5.90	5			5
NI9114	NI-NI-0011	6.90	1			1
NI9115	NI-JB-0005	6.60	1			1
NI9116	NI-NI-0016	6.48	3			3
NI9117	NI-NI-0013	6.59	1			1
NI9118	NI-NI-0015	6.24	4			4
NI9119	NI-NI-0015	6.24	4			4
NI9120	NI-NI-0016	6.48	3			3
NI9200	NI-NI-0004	6.17	4			4
NI9201	NI-HB-0001	6.59	1			1
NI9202	NI-NI-0015	6.24	4			4
NI9300	NI-JB-0006	6.86	1			1
NI9301	NI-JB-0006	6.86	1			1
NI9400	NI-NI-0008	6.09	5			5
NI9401	NI-NI-0009	6.70	1			1
NI9402	NI-NI-0007	6.54	2			2
NI9403	NI-NI-0007	6.54	2			2
NI9404	NI-NI-0010	7.08	1			1
NI9405	NI-NI-0008	6.09	5			5
NI9500	NI-NI-0004	6.17	4			4
PN9100	PN-CL-0004	6.40	3			3
PN9101	PN-CL-0003	6.40	3			3
PN9102	PN-CL-0003	6.40	3			3
PN9103	PN-CL-0003	6.40	3			3
PN9104	PN-CL-0003	6.40	3			3
PN9105	PN-CL-0003	6.40	3			3
PN9106	PN-PO-0006	6.59	1			1
PN9107	PN-PO-0006	6.59	1			1
PN9108	PN-MR-0008	6.43	3			3
PN9109	PN-MR-0008	6.43	3			3
PN9110	PN-MR-0008	6.43	3			3

Priority Subwatersheds		Future w/o Project Score	Preliminary Project Score	FXB Adjustment (+1, 0, -1)	County Adjustment (+/-)	Applied Score
Project Number	**Subwatershed**					
PN9111	PN-MR-0008	6.43	3			3
PN9112	PN-MR-0007	6.18	4			4
PN9113	PN-MR-0006	6.59	1			1
PN9114	PN-MR-0006	6.59	1			1
PN9116	PN-PN-0004	6.51	2			2
PN9117	PN-MR-0005	6.40	3			3
PN9118	PN-MR-0005	6.40	3			3
PN9119	PN-MR-0004	6.48	3			3
PN9120	PN-MR-0004	6.48	3			3
PN9121	PN-MR-0004	6.48	3			3
PN9122	PN-MR-0003	6.05	5			5
PN9123	PN-PN-0003	6.40	3			3
PN9124	PN-MR-0001	6.43	3			3
PN9125	PN-CL-0009	6.59	1			1
PN9126	PN-CL-0008	6.67	1			1
PN9127	PN-CL-0006	5.90	5			5
PN9200	PN-MR-0006	6.59	1			1
PN9201	PN-PN-0001	5.92	5			5
PN9400	PN-CL-0002	6.30	4			4
PN9401	PN-CL-0001	6.05	5			5
PN9402	PN-CL-0001	6.05	5			5
PN9403	PN-PO-0005	7.47	1			1
PN9404	PN-MR-0001	6.43	3			3
PN9405	PN-CL-0008	6.67	1			1
PN9406	PN-CL-0004	6.40	3			3
PN9407	PN-PN-0002	6.40	3			3
PN9500	PN-PO-0007	6.98	1			1

Appendix D

Preliminary Project Scores
Based on Sequencing

Sequencing		Sequence Number	Preliminary Project Score	FXB Adjustment	County Adjustment (+/-)	Applied Score
Project Number	**Subwatershed**					
NI9100	NI-NI-0001	1	5			5
NI9101	NI-NI-0002	7	1	2		3
NI9102	NI-NI-0002	7	1	4		5
NI9103	NI-NI-0002	7	1	4		5
NI9104	NI-NI-0005	5	1			1
NI9105	NI-NI-0005	5	1			1
NI9106	NI-NI-0009	1	5			5
NI9107	NI-JB-0003	4	1	4		5
NI9108	NI-NI-0010	3	3			3
NI9109	NI-JB-0003	4	1	4		5
NI9110	NI-NI-0013	2	3	1		4
NI9111	NI-NI-0014	1	5			5
NI9112	NI-JB-0003	4	1	4		5
NI9113	NI-JB-0004	3	3			3
NI9114	NI-NI-0011	2	3	1		4
NI9115	NI-JB-0005	2	3			3
NI9116	NI-NI-0016	1	5			5
NI9117	NI-NI-0013	2	3	2		5
NI9118	NI-NI-0015	1	5			5
NI9119	NI-NI-0015	1	5			5
NI9120	NI-NI-0016	1	5			5
NI9200	NI-NI-0004	6	1	2		3
NI9201	NI-HB-0001	1	5	-1		4
NI9202	NI-NI-0015	1	5			5
NI9300	NI-JB-0006	1	5			5
NI9301	NI-JB-0006	1	5			5
NI9400	NI-NI-0008	2	3			3
NI9401	NI-NI-0009	1	5			5
NI9402	NI-NI-0007	4	1			1
NI9403	NI-NI-0007	4	1			1
NI9404	NI-NI-0010	3	3			3
NI9405	NI-NI-0008	2	3			3
NI9500	NI-NI-0004	6	1			1
PN9100	PN-CL-0004	1	5			5
PN9101	PN-CL-0003	1	5			5
PN9102	PN-CL-0003	1	5			5
PN9103	PN-CL-0003	1	5			5
PN9104	PN-CL-0003	1	5			5
PN9105	PN-CL-0003	1	5			5

Sequencing		Sequence Number	Preliminary Project Score	FXB Adjustment	County Adjustment (+/-)	Applied Score
Project Number	**Subwatershed**					
PN9106	PN-PO-0006	1	5			5
PN9107	PN-PO-0006	1	5			5
PN9108	PN-MR-0008	1	5			5
PN9109	PN-MR-0008	1	5			5
PN9110	PN-MR-0008	1	5			5
PN9111	PN-MR-0008	1	5			5
PN9112	PN-MR-0007	2	3			3
PN9113	PN-MR-0006	1	5			5
PN9114	PN-MR-0006	1	5			5
PN9116	PN-PN-0004	1	5			5
PN9117	PN-MR-0005	1	5			5
PN9118	PN-MR-0005	1	5			5
PN9119	PN-MR-0004	1	5			5
PN9120	PN-MR-0004	1	5			5
PN9121	PN-MR-0004	1	5	-1		4
PN9122	PN-MR-0003	3	3	2		5
PN9123	PN-PN-0003	2	3	2		5
PN9124	PN-MR-0001	4	1	4		5
PN9125	PN-CL-0009	1	5	-1		4
PN9126	PN-CL-0008	1	5	-1		4
PN9127	PN-CL-0006	3	3	2		5
PN9200	PN-MR-0006	1	5			5
PN9201	PN-PN-0001	3	3			3
PN9400	PN-CL-0002	2	3			3
PN9401	PN-CL-0001	5	1			1
PN9402	PN-CL-0001	5	1			1
PN9403	PN-PO-0005	2	3			3
PN9404	PN-MR-0001	4	1			1
PN9405	PN-CL-0008	1	5	-1		4
PN9406	PN-CL-0004	1	5	-1		4
PN9407	PN-PN-0002	1	5	-1		4
PN9500	PN-PO-0007	1	5			5

Appendix E

Preliminary Project Scores
Based on Implementability

Implementability		Initial Score based on Ownership	Is there an Existing DPs / WPs? (Yes = +1)	Adjusted Score for County Maintained WP or DP (Init Score / 2)	Preliminary Project Score	FXB Adjustment	County Adjustment	Applied Score
Project Number	**Subwatershed**							
NI9100	NI-NI-0001	10	0	10.0	2			2
NI9101	NI-NI-0002	4	1	2.0	5			5
NI9102	NI-NI-0002	4	0	4.0	4			4
NI9103	NI-NI-0002	3	0	3.0	5			5
NI9104	NI-NI-0005	4	0	4.0	4			4
NI9105	NI-NI-0005	4	0	4.0	4			4
NI9106	NI-NI-0009	28	0	28.0	1			1
NI9107	NI-JB-0003	4	0	4.0	4			4
NI9108	NI-NI-0010	5	0	5.0	4			4
NI9109	NI-JB-0003	8	0	8.0	2			2
NI9110	NI-NI-0013	4	0	4.0	4			4
NI9111	NI-NI-0014	4	0	4.0	4			4
NI9112	NI-JB-0003	4	0	4.0	4			4
NI9113	NI-JB-0004	14	0	14.0	2			2
NI9114	NI-NI-0011	3	0	3.0	5			5
NI9115	NI-JB-0005	14	0	14.0	2			2
NI9116	NI-NI-0016	4	0	4.0	4			4
NI9117	NI-NI-0013	8	0	8.0	2			2
NI9118	NI-NI-0015	30	0	30.0	1			1
NI9119	NI-NI-0015	6	0	6.0	4			4
NI9120	NI-NI-0016	8	0	8.0	2			2
NI9200	NI-NI-0004	8	0	8.0	2			2
NI9201	NI-HB-0001	34	0	34.0	1			1
NI9202	NI-NI-0015	8	0	8.0	2			2
NI9300	NI-JB-0006	10	0	10.0	2			2
NI9301	NI-JB-0006	8	0	8.0	2			2
NI9400	NI-NI-0008	8	0	8.0	2			2
NI9401	NI-NI-0009	6	0	6.0	4			4
NI9402	NI-NI-0007	8	0	8.0	2			2
NI9403	NI-NI-0007	12	1	6.0	4	5		5
NI9404	NI-NI-0010	21	0	21.0	1	2		2
NI9405	NI-NI-0008	10	0	10.0	2	4		4
NI9500	NI-NI-0004	34	0	34.0	1			1

Implementability		Initial Score based on Ownership	Is there an Existing DPs / WPs? (Yes = +1)	Adjusted Score for County Maintained WP or DP (Init Score / 2)	Preliminary Project Score	FXB Adjustment	County Adjustment	Applied Score
Project Number	**Subwatershed**							
PN9100	PN-CL-0004	17	0	17.0	1			1
PN9101	PN-CL-0003	8	0	8.0	2			2
PN9102	PN-CL-0003	8	0	8.0	2			2
PN9103	PN-CL-0003	16	0	16.0	1	2		2
PN9104	PN-CL-0003	8	1	4.0	4			4
PN9105	PN-CL-0003	12	0	12.0	2			2
PN9106	PN-PO-0006	2	1	1.0	5			5
PN9107	PN-PO-0006	3	1	1.5	5			5
PN9108	PN-MR-0008	8	0	8.0	2			2
PN9109	PN-MR-0008	24	0	24.0	1			1
PN9110	PN-MR-0008	7	0	7.0	3	5		5
PN9111	PN-MR-0008	30	0	30.0	1			1
PN9112	PN-MR-0007	4	0	4.0	4			4
PN9113	PN-MR-0006	4	0	4.0	4			4
PN9114	PN-MR-0006	14	1	7.0	3			3
PN9116	PN-PN-0004	5	0	5.0	4			4
PN9117	PN-MR-0005	10	0	10.0	2			2
PN9118	PN-MR-0005	24	0	24.0	1			1
PN9119	PN-MR-0004	4	1	2.0	5			5
PN9120	PN-MR-0004	8	0	8.0	2			2
PN9121	PN-MR-0004	16	0	16.0	1			1
PN9122	PN-MR-0003	6	0	6.0	4			4
PN9123	PN-PN-0003	4	0	4.0	4			4
PN9124	PN-MR-0001	12	0	12.0	2			2
PN9125	PN-CL-0009	16	0	16.0	1	2		2
PN9126	PN-CL-0008	10	0	10.0	2			2
PN9127	PN-CL-0006	14	1	7.0	3			3
PN9200	PN-MR-0006	16	0	16.0	1	2		2
PN9201	PN-PN-0001	28	0	28.0	1			1
PN9400	PN-CL-0002	8	0	8.0	2			2
PN9401	PN-CL-0001	4	0	4.0	4			4
PN9402	PN-CL-0001	18	0	18.0	1	2		2
PN9403	PN-PO-0005	10	0	10.0	2			2

Implementability		Initial Score based on Ownership	Is there an Existing DPs / WPs? (Yes = +1)	Adjusted Score for County Maintained WP or DP (Init Score / 2)	Preliminary Project Score	FXB Adjustment	County Adjustment	Applied Score
Project Number	**Subwatershed**							
PN9404	PN-MR-0001	1	0	1.0	5			5
PN9405	PN-CL-0008	12	0	12.0	2			2
PN9406	PN-CL-0004	29	0	29.0	1			1
PN9407	PN-PN-0002	8	0	8.0	2			2
PN9500	PN-PO-0007	1	0	1.0	5			5

Appendix F

STEPL

Total Suspended Solids (TSS)		Existing	Future w/o Project	Future w/Project	% Change Future w/o to Future w/project	Adjusted Existing Score	FXB Adjustment (+1, 0, -1)	Preliminary Indicator Score	County Adjustment	Applied Score
Project No.	**Subwatershed**	**Metric**	**Metric**	**Metric**						
NI9100	NI-NI-0001	0.05	0.05	0.05	-4.22%	3	0	3		3
NI9101	NI-NI-0002	0.03	0.03	0.02	-21.10%	4	0	4		4
NI9102	NI-NI-0002	0.03	0.03	0.03	-7.22%	3	0	3		3
NI9103	NI-NI-0002	0.03	0.03	0.03	-3.06%	2	0	2		2
NI9104	NI-NI-0005	0.05	0.05	0.05	-10.08%	3	0	3		3
NI9105	NI-NI-0005	0.05	0.05	0.05	-1.45%	2	1	3		3
NI9106	NI-NI-0009	0.03	0.03	0.02	-34.36%	4	0	4		4
NI9107	NI-JB-0003	0.04	0.04	0.04	-0.92%	2	0	2		2
NI9108	NI-NI-0010	0.02	0.02	0.02	-3.61%	2	1	3		3
NI9109	NI-JB-0003	0.04	0.04	0.04	-1.71%	2	0	2		2
NI9110	NI-NI-0013	0.04	0.04	0.04	-8.93%	3	0	3		3
NI9111	NI-NI-0014	0.05	0.05	0.04	-11.27%	4	0	4		4
NI9112	NI-JB-0003	0.04	0.04	0.04	-2.68%	2	0	2		2
NI9113	NI-JB-0004	0.07	0.07	0.06	-5.99%	3	1	4		4
NI9114	NI-NI-0011	0.04	0.02	0.01	-14.25%	4	0	4		4
NI9115	NI-JB-0005	0.01	0.01	0.00	-63.80%	4	-1	3		3
NI9116	NI-NI-0016	0.07	0.07	0.07	0.01%	1	0	1		1
NI9117	NI-NI-0013	0.04	0.04	0.04	-0.09%	2	0	2		2
NI9118	NI-NI-0015	0.26	0.07	0.07	-4.88%	3	0	3		3
NI9119	NI-NI-0015	0.26	0.07	0.06	-15.84%	4	0	4		4
NI9120	NI-NI-0016	0.07	0.07	0.07	-0.98%	2	0	2		2
NI9200	NI-NI-0004	0.03	0.04	NA	-	-	4	4		4
NI9201	NI-HB-0001	0.25	0.04	NA	-	-	3	3		3
NI9202	NI-NI-0015	0.26	0.07	NA	-	-	4	4		4
NI9300	NI-JB-0006	0.05	0.01	NA	-	-	3	3		3
NI9301	NI-JB-0006	0.05	0.01	NA	-	-	2	2		2
NI9400	NI-NI-0008	0.07	0.04	NA	-	-	1	1		1
NI9401	NI-NI-0009	0.03	0.03	0.02	-20.33%	4	0	4		4
NI9402	NI-NI-0007	0.04	0.04	0.02	-40.34%	4	0	4		4
NI9403	NI-NI-0007	0.04	0.04	NA	-	-	3	3		3
NI9404	NI-NI-0010	0.02	0.02	0.02	-2.08%	2	0	2		2
NI9405	NI-NI-0008	0.07	0.04	NA	-	-	2	2		2
NI9500	NI-NI-0004	0.03	0.04	0.03	-2.22%	2	1	3		3
PN9100	PN-CL-0004	0.06	0.06	0.06	-5.45%	3	0	3		3
PN9101	PN-CL-0003	0.06	0.06	0.06	-5.23%	3	0	3		3
PN9102	PN-CL-0003	0.06	0.06	0.06	-3.05%	2	0	2		2

Total Suspended Solids (TSS)		Existing	Future w/o Project	Future w/Project	% Change Future w/o to Future w/project	Adjusted Existing Score	FXB Adjustment (+1, 0, -1)	Preliminary Indicator Score	County Adjustment	Applied Score
Project No.	**Subwatershed**	**Metric**	**Metric**	**Metric**						
PN9103	PN-CL-0003	0.06	0.06	0.06	-1.21%	2	1	3		3
PN9104	PN-CL-0003	0.06	0.06	0.06	-7.83%	3	0	3		3
PN9105	PN-CL-0003	0.06	0.06	0.06	-6.66%	3	0	3		3
PN9106	PN-PO-0006	0.06	0.06	0.05	-8.13%	3	-1	2		2
PN9107	PN-PO-0006	0.06	0.06	0.05	-7.44%	3	-1	2		2
PN9108	PN-MR-0008	0.05	0.05	0.04	-8.01%	3	1	4		4
PN9109	PN-MR-0008	0.05	0.05	0.04	-6.49%	3	1	4		4
PN9110	PN-MR-0008	0.05	0.05	0.04	-3.46%	2	0	2		2
PN9111	PN-MR-0008	0.05	0.05	0.04	-8.01%	3	1	4		4
PN9112	PN-MR-0007	0.04	0.04	0.03	-26.27%	4	0	4		4
PN9113	PN-MR-0006	0.06	0.05	0.04	-6.88%	3	1	4		4
PN9114	PN-MR-0006	0.06	0.05	0.05	-3.99%	2	0	2		2
PN9116	PN-PN-0004	0.05	0.05	0.04	-10.56%	4	0	4		4
PN9117	PN-MR-0005	0.06	0.06	0.05	-4.30%	3	1	4		4
PN9118	PN-MR-0005	0.06	0.06	0.05	-7.09%	3	1	4		4
PN9119	PN-MR-0004	0.05	0.05	0.05	-1.14%	2	1	3		3
PN9120	PN-MR-0004	0.05	0.05	0.05	-10.68%	4	0	4		4
PN9121	PN-MR-0004	0.05	0.05	0.03	-36.03%	4	0	4		4
PN9122	PN-MR-0003	0.15	0.04	0.04	-2.58%	2	1	3		3
PN9123	PN-PN-0003	0.05	0.05	0.05	-5.92%	3	0	3		3
PN9124	PN-MR-0001	0.04	0.04	0.03	-10.32%	4	0	4		4
PN9125	PN-CL-0009	0.04	0.04	0.02	-57.67%	4	0	4		4
PN9126	PN-CL-0008	0.04	0.04	0.02	-49.59%	4	0	4		4
PN9127	PN-CL-0006	0.06	0.06	0.05	-9.92%	3	0	3		3
PN9200	PN-MR-0006	0.06	0.05	NA	-	-	2	2		2
PN9201	PN-PN-0001	0.06	0.06	NA	-	-	4	4		4
PN9400	PN-CL-0002	0.04	0.04	0.01	-63.20%	4	0	4		4
PN9401	PN-CL-0001	0.04	0.04	0.04	-2.23%	2	1	3		3
PN9402	PN-CL-0001	0.04	0.04	0.02	-48.49%	4	0	4		4
PN9403	PN-PO-0005	0.05	0.05	NA	-	-	4	4		4
PN9404	PN-MR-0001	0.04	0.04	NA	-	-	2	2		2
PN9405	PN-CL-0008	0.04	0.04	0.03	-13.71%	4	0	4		4
PN9406	PN-CL-0004	0.06	0.06	0.04	-30.00%	4	0	4		4
PN9407	PN-PN-0002	0.05	0.05	NA	-	-	2	2		2
PN9500	PN-PO-0007	0.05	0.05	0.04	-3.46%	2	0	2		2

Total Nitrogen (TN)		Existing	Future w/o Project	Future w/Project	% Change Future w/o to Future w/project	Adjusted Existing Score	FXB Adjustment (+1, 0, -1)	Preliminary Indicator Score	County Adjustment	Applied Score
Project No.	**Subwatershed**	**Metric**	**Metric**	**Metric**						
NI9100	NI-NI-0001	1.72	1.77	1.71	-3%	3	0	3		3
NI9101	NI-NI-0002	1.02	1.61	1.47	-9%	4	0	4		4
NI9102	NI-NI-0002	1.02	1.61	1.56	-3%	3	0	3		3
NI9103	NI-NI-0002	1.02	1.61	1.59	-1%	2	0	2		2
NI9104	NI-NI-0005	2.76	2.85	2.74	-4%	3	0	3		3
NI9105	NI-NI-0005	2.76	2.85	2.84	0%	2	1	3		3
NI9106	NI-NI-0009	1.78	1.80	1.57	-13%	4	0	4		4
NI9107	NI-JB-0003	2.35	2.47	2.46	0%	2	0	2		2
NI9108	NI-NI-0010	1.23	1.26	1.24	-2%	2	1	3		3
NI9109	NI-JB-0003	2.35	2.47	2.45	-1%	2	0	2		2
NI9110	NI-NI-0013	2.21	2.29	2.23	-3%	3	0	3		3
NI9111	NI-NI-0014	2.61	2.66	2.54	-5%	4	0	4		4
NI9112	NI-JB-0003	2.35	2.47	2.44	-1%	2	0	2		2
NI9113	NI-JB-0004	3.59	3.64	3.54	-3%	3	1	4		4
NI9114	NI-NI-0011	0.82	1.01	0.94	-7%	4	0	4		4
NI9115	NI-JB-0005	1.27	1.29	0.96	-26%	4	-1	3		3
NI9116	NI-NI-0016	3.42	3.47	3.47	0%	1	0	1		1
NI9117	NI-NI-0013	2.21	2.29	2.29	0%	2	0	2		2
NI9118	NI-NI-0015	3.78	3.59	3.51	-2%	3	0	3		3
NI9119	NI-NI-0015	3.78	3.59	3.33	-7%	4	0	4		4
NI9120	NI-NI-0016	3.42	3.47	3.45	0%	2	0	2		2
NI9200	NI-NI-0004	1.73	2.02	NA	-	-	3	3		3
NI9201	NI-HB-0001	2.79	2.53	NA	-	-	2	2		2
NI9202	NI-NI-0015	3.78	3.59	NA	-	-	3	3		3
NI9300	NI-JB-0006	1.72	1.73	NA	-	-	2	2		2
NI9301	NI-JB-0006	1.72	1.73	NA	-	-	1	1		1
NI9400	NI-NI-0008	2.39	2.46	NA	-	-	1	1		1
NI9401	NI-NI-0009	1.78	1.80	1.67	-7%	4	0	4		4
NI9402	NI-NI-0007	2.20	2.34	1.97	-16%	4	0	4		4
NI9403	NI-NI-0007	2.20	2.34	NA	-	-	2	2		2
NI9404	NI-NI-0010	1.23	1.26	1.25	-1%	2	0	2		2
NI9405	NI-NI-0008	2.39	2.46	NA	-	-	1	1		1
NI9500	NI-NI-0004	1.73	2.02	1.98	-2%	2	1	3		3
PN9100	PN-CL-0004	3.02	3.08	2.99	-3%	3	0	3		3
PN9101	PN-CL-0003	3.08	3.19	3.11	-3%	3	0	3		3
PN9102	PN-CL-0003	3.08	3.19	3.14	-1%	2	0	2		2

Total Nitrogen (TN)		Existing	Future w/o Project	Future w/Project	% Change Future w/o to Future w/project	Adjusted Existing Score	FXB Adjustment (+1, 0, -1)	Preliminary Indicator Score	County Adjustment	Applied Score
Project No.	**Subwatershed**	**Metric**	**Metric**	**Metric**						
PN9103	PN-CL-0003	3.08	3.19	3.17	-1%	2	1	3		3
PN9104	PN-CL-0003	3.08	3.19	3.07	-4%	3	0	3		3
PN9105	PN-CL-0003	3.08	3.19	3.09	-3%	3	0	3		3
PN9106	PN-PO-0006	2.45	2.63	2.57	-3%	3	-1	2		2
PN9107	PN-PO-0006	2.45	2.63	2.55	-3%	3	-1	2		2
PN9108	PN-MR-0008	2.46	2.56	2.45	-4%	3	1	4		4
PN9109	PN-MR-0008	2.46	2.56	2.49	-3%	3	1	4		4
PN9110	PN-MR-0008	2.46	2.56	2.52	-1%	2	0	2		2
PN9111	PN-MR-0008	2.46	2.56	2.45	-4%	3	1	4		4
PN9112	PN-MR-0007	2.08	2.37	2.10	-11%	4	0	4		4
PN9113	PN-MR-0006	2.49	2.59	2.51	-3%	3	1	4		4
PN9114	PN-MR-0006	2.49	2.59	2.54	-2%	2	0	2		2
PN9116	PN-PN-0004	2.51	2.66	2.54	-4%	4	0	4		4
PN9117	PN-MR-0005	2.96	3.01	2.95	-2%	2	1	3		3
PN9118	PN-MR-0005	2.96	3.01	2.91	-3%	3	1	4		4
PN9119	PN-MR-0004	2.60	2.73	2.72	-1%	2	1	3		3
PN9120	PN-MR-0004	2.60	2.73	2.60	-5%	4	0	4		4
PN9121	PN-MR-0004	2.60	2.73	2.29	-16%	4	0	4		4
PN9122	PN-MR-0003	2.13	2.11	2.08	-1%	2	1	3		3
PN9123	PN-PN-0003	2.70	2.84	2.76	-3%	3	0	3		3
PN9124	PN-MR-0001	0.98	0.98	0.89	-10%	4	0	4		4
PN9125	PN-CL-0009	2.19	2.32	1.77	-24%	4	0	4		4
PN9126	PN-CL-0008	2.14	2.24	1.79	-20%	4	0	4		4
PN9127	PN-CL-0006	2.65	2.72	2.60	-4%	3	0	3		3
PN9200	PN-MR-0006	2.49	2.59	NA	-	-	1	1		1
PN9201	PN-PN-0001	2.56	2.63	NA	-	-	3	3		3
PN9400	PN-CL-0002	1.73	2.13	1.60	-25%	4	0	4		4
PN9401	PN-CL-0001	1.83	2.03	2.00	-1%	2	1	3		3
PN9402	PN-CL-0001	1.83	2.03	1.62	-20%	4	0	4		4
PN9403	PN-PO-0005	1.78	1.80	NA	-	-	3	3		3
PN9404	PN-MR-0001	0.98	0.98	NA	-	-	1	1		1
PN9405	PN-CL-0008	2.14	2.24	2.11	-6%	4	0	4		4
PN9406	PN-CL-0004	3.02	3.08	2.65	-14%	4	0	4		4
PN9407	PN-PN-0002	2.62	2.76	NA	-	-	1	1		1
PN9500	PN-PO-0007	0.94	0.95	0.92	-3%	3	0	3		3

Total Phosphorus (TP)		Existing	Future w/o Project	Future w/Project	% Change Future w/o to Future w/project	Adjusted Existing Score	FXB Adjustment (+1, 0, -1)	Preliminary Indicator Score	County Adjustment	Applied Score
Project No.	**Subwatershed**	**Metric**	**Metric**	**Metric**						
NI9100	NI-NI-0001	0.28	0.28	0.27	-4%	3	0	3		3
NI9101	NI-NI-0002	0.16	0.24	0.21	-14%	4	0	4		4
NI9102	NI-NI-0002	0.16	0.24	0.23	-5%	3	0	3		3
NI9103	NI-NI-0002	0.16	0.24	0.23	-2%	3	0	3		3
NI9104	NI-NI-0005	0.41	0.42	0.40	-4%	3	0	3		3
NI9105	NI-NI-0005	0.41	0.42	0.42	-1%	2	1	3		3
NI9106	NI-NI-0009	0.26	0.26	0.20	-21%	4	0	4		4
NI9107	NI-JB-0003	0.35	0.37	0.36	-1%	2	0	2		2
NI9108	NI-NI-0010	0.18	0.19	0.18	-2%	3	1	4		4
NI9109	NI-JB-0003	0.35	0.37	0.36	-1%	2	0	2		2
NI9110	NI-NI-0013	0.33	0.34	0.32	-5%	3	0	3		3
NI9111	NI-NI-0014	0.39	0.39	0.37	-5%	4	0	4		4
NI9112	NI-JB-0003	0.35	0.37	0.36	-1%	2	0	2		2
NI9113	NI-JB-0004	0.53	0.53	0.53	-1%	2	1	3		3
NI9114	NI-NI-0011	0.13	0.15	0.13	-9%	4	0	4		4
NI9115	NI-JB-0005	0.17	0.18	0.12	-34%	4	-1	3		3
NI9116	NI-NI-0016	0.52	0.52	0.52	0%	1	0	1		1
NI9117	NI-NI-0013	0.33	0.34	0.34	0%	2	0	2		2
NI9118	NI-NI-0015	0.66	0.55	0.54	-3%	3	0	3		3
NI9119	NI-NI-0015	0.66	0.55	0.50	-9%	4	0	4		4
NI9120	NI-NI-0016	0.52	0.52	0.52	-1%	2	0	2		2
NI9200	NI-NI-0004	0.26	0.29	NA	0%	-	3	3		3
NI9201	NI-HB-0001	0.48	0.36	NA	0%	-	2	2		2
NI9202	NI-NI-0015	0.66	0.55	NA	0%	-	3	3		3
NI9300	NI-JB-0006	0.26	0.24	NA	0%	-	2	2		2
NI9301	NI-JB-0006	0.26	0.24	NA	0%	-	1	1		1
NI9400	NI-NI-0008	0.37	0.36	NA	0%	-	1	1		1
NI9401	NI-NI-0009	0.26	0.26	0.23	-12%	4	0	4		4
NI9402	NI-NI-0007	0.32	0.34	0.25	-26%	4	0	4		4
NI9403	NI-NI-0007	0.32	0.34	NA	0%	-	2	2		2
NI9404	NI-NI-0010	0.18	0.19	0.18	-1%	2	0	2		2
NI9405	NI-NI-0008	0.37	0.36	NA	0%	-	1	1		1
NI9500	NI-NI-0004	0.26	0.29	0.29	-2%	3	1	4		4
PN9100	PN-CL-0004	0.46	0.47	0.46	-3%	3	0	3		3
PN9101	PN-CL-0003	0.47	0.49	0.47	-3%	3	0	3		3
PN9102	PN-CL-0003	0.47	0.49	0.48	-2%	3	0	3		3

Total Phosphorus (TP)		Existing	Future w/o Project	Future w/Project	% Change Future w/o to Future w/project	Adjusted Existing Score	FXB Adjustment (+1, 0, -1)	Preliminary Indicator Score	County Adjustment	Applied Score
Project No.	**Subwatershed**	**Metric**	**Metric**	**Metric**						
PN9103	PN-CL-0003	0.47	0.49	0.48	-1%	2	1	3		3
PN9104	PN-CL-0003	0.47	0.49	0.47	-5%	3	0	3		3
PN9105	PN-CL-0003	0.47	0.49	0.47	-4%	3	0	3		3
PN9106	PN-PO-0006	0.39	0.41	0.40	-3%	3	-1	2		2
PN9107	PN-PO-0006	0.39	0.41	0.39	-5%	4	-1	3		3
PN9108	PN-MR-0008	0.36	0.38	0.36	-6%	4	1	5		5
PN9109	PN-MR-0008	0.36	0.38	0.36	-4%	3	1	4		4
PN9110	PN-MR-0008	0.36	0.38	0.37	-2%	3	0	3		3
PN9111	PN-MR-0008	0.36	0.38	0.36	-6%	4	1	5		5
PN9112	PN-MR-0007	0.32	0.35	0.29	-17%	4	0	4		4
PN9113	PN-MR-0006	0.38	0.39	0.37	-5%	3	1	4		4
PN9114	PN-MR-0006	0.38	0.39	0.38	-2%	3	0	3		3
PN9116	PN-PN-0004	0.37	0.39	0.36	-7%	4	0	4		4
PN9117	PN-MR-0005	0.45	0.45	0.44	-2%	3	1	4		4
PN9118	PN-MR-0005	0.45	0.45	0.43	-5%	4	1	5		5
PN9119	PN-MR-0004	0.40	0.42	0.42	-1%	2	1	3		3
PN9120	PN-MR-0004	0.40	0.42	0.39	-8%	4	0	4		4
PN9121	PN-MR-0004	0.40	0.42	0.31	-26%	4	0	4		4
PN9122	PN-MR-0003	0.37	0.32	0.31	-2%	3	1	4		4
PN9123	PN-PN-0003	0.41	0.43	0.41	-4%	3	0	3		3
PN9124	PN-MR-0001	0.17	0.17	0.14	-13%	4	0	4		4
PN9125	PN-CL-0009	0.33	0.35	0.21	-39%	4	0	4		4
PN9126	PN-CL-0008	0.32	0.33	0.22	-33%	4	0	4		4
PN9127	PN-CL-0006	0.43	0.44	0.41	-6%	4	0	4		4
PN9200	PN-MR-0006	0.38	0.39	NA	0%	-	1	1		1
PN9201	PN-PN-0001	0.39	0.40	NA	0%	-	3	3		3
PN9400	PN-CL-0002	0.26	0.31	0.19	-41%	4	0	4		4
PN9401	PN-CL-0001	0.28	0.31	0.30	-2%	3	1	4		4
PN9402	PN-CL-0001	0.28	0.31	0.21	-33%	4	0	4		4
PN9403	PN-PO-0005	0.28	0.28	NA	0%	-	3	3		3
PN9404	PN-MR-0001	0.17	0.17	NA	0%	-	1	1		1
PN9405	PN-CL-0008	0.32	0.33	0.30	-9%	4	0	4		4
PN9406	PN-CL-0004	0.46	0.47	0.37	-22%	4	0	4		4
PN9407	PN-PN-0002	0.40	0.42	NA	0%	-	1	1		1
PN9500	PN-PO-0007	0.17	0.17	0.16	-4%	3	0	3		3