WESTERN CONSERVATION DISTRICT

2016 Long Range Plan

Byars, Jackie - NRCS, Point Pleasant, WV

Table of Contents

Western Conservation District

Long Range Plan - 2016

1. Introduction:
   a. General Information regarding District, Counties, etc.

Location:

The Western Conservation District is comprised of Jackson, Mason and Putnam Counties in the Southwestern corner of West Virginia. The counties are all influence by river morphology with the Ohio River bordering the western edge of Mason and Jackson Counties and the Kanawha River flowing through the center of Putnam and Mason Counties. All three counties have a vast array of landforms from the flat expansive crop fields along the rivers, to the mountain ridges that are common for the large population of beef cattle that line small grass based farms along the ridgetops. The area is found within the triangle formed from Parkersburg, Charleston and Huntington, which serves as great market avenues for fresh produce and meat products sold locally.

History:

(Jackson & Mason Counties) The county seat for Jackson County is Ripley and was established in 1832. Mason County's seat is Point Pleasant and was established in 1794. Very early settlements were made near Point Pleasant in 1774, after the Indian War, but it was not until about 1800 that sizable permanent settlements were made in Jackson and Mason Counties. Farms were of the subsistence type. Early settlers cleared the farmable bottom lands first and gradually worked back into the hill country. The building of the turnpikes, as the James River and Kanawha Turnpike from Richmond Virginia, to Guyandotte West Virginia, helped develop the area. The Charleston-Point Pleasant turnpikes along each side of the Kanawha River were opened in 1851 and 1861. A system of locks on the Kanawha and Ohio Rivers fostered river transportation. Lumbering was also an important industry in the early history of these counties.

(Putnam County) Winfield, the county seat, was laid out in 1848 but not incorporated until 1868. It was named in honor of General Winfield Scott of Mexican War fame. The town of Buffalo is the oldest settlement in the county. The first known settlements in the area that is now Putnam County were made in 1774 along the Kanawha River and in the Teays Valley area. Putnam County was created in 1848 from parts of Kanawha, Mason, and Cabell Counties by an act of the Virginia General Assembly. It was named in honor of General Israel Putnam, a New England soldier and patriot. The establishment of Putnam County preceded by fifteen years the formation of West Virginia, as a state.

Watershed:

All three counties are encompassed in four 8-digit hydrological codes for watershed designation. These include: Lower Ohio (5090101), Lower Kanawha (5050008), Middle Ohio South (5030202), and Lower Guyandotte (5070102).

Two major river systems run throughout the District and play an integral role in the development of the agricultural make-up of the counties as well as serving as a public interest in protecting through sound conservation measures. The first major waterway is the Ohio River. It stretches along the western edge of both Jackson and Mason Counties and results in over 80 miles of shoreline. The second river is the Kanawha that splits both Putnam and Mason Counties before it enters the Ohio at Point Pleasant. This river system runs 44 miles through the District. A vast tributary system drains into these two major watersheds and have direct impact on the quality of these streams in our area.

Western Conservation District was part of a PL-566 Watershed Project Plan initiated by NRCS is the early 70's. The plan was to build eight impoundments mainly in Jackson County to help prevent flooding in the town of Ripley, but also provide recreational activities and water supply for the public. Due to a cut in funding only seven watershed impoundments were completed. Five of the seven watershed structures are open to the public, with the remaining two privately owned. Three are leased or owned by the WV Division of Natural Resources for use as part of their wildlife management areas. Three of the structures were also built with water supply gates for use in public water, but currently only one is being managed by the City of Ripley for public water use.

The eight digit hydrological unit codes for Western Conservation District includes the Lower Kanawha, Lower Ohio, Middle Ohio South, and Lower Guyandotte. For the purpose of this Long Range Plan these watersheds will be broken down to twelve digit codes to work within and define areas with the greatest resource concerns. Data from the Environmental Protection Agency and West Virginia Division of Environmental Protection data from the 303d and TMDL listing will be used for defining the potential for environmental benefits.

Land Use:

The Western Conservation District is comprised of Jackson, Mason and Putnam Counties. The total land area for the three counties is 1,247 square miles (or 798,144 acres). The land use of the area is broken down in the chart below.

	Total (ac)	Woodland (ac)	Pasture (ac)	Cropland (ac)	Other (ac)
Jackson	297,184	111,741	96,882	73,107	15,454
Mason	275,680	102,829	74,157	78,845	19,849
Putnam	225,280	98,898	61,727	45,957	18,698
Totals:	798,144	313,468	232,766	197,909	54,001

Climate:

Winters are cold with a moderate amount of snow throughout the area. Intermittent thaws preclude a long-lasting snow cover. Summers are fairly warm on the mountain slopes and very warm with occasional very hot days in the valleys. Rainfall is evenly distributed during the year, but is heavier on the windward, west facing slopes

than in the valleys. The average annual precipitation is adequate for most crops. In winter the average daily temperature is 34 degrees F. In summer the average temperature is 73 degrees F. Total precipitation is about 41 inches per year with 50 percent of that rainfall coming during the growing season. The average seasonal snowfall is 14 inches. The average growing season 9 out of 10 years is 188 days.

Employment:

The area is widely known for coal burning electrical power plants and other industrial manufacturing plants along its major waterways. Major employers in Jackson and Mason Counties are county government and school boards as well as power plants and local manufacturers. Putnam County serves as a "bedroom" community between two of the larger cities in West Virginia (Charleston and Huntington). Most employment for Putnam County residents is working in these two major cities in service centered businesses or working locally at the Toyota Manufacturing Plant in Buffalo, WV.

Recreation:

There are six wildlife management areas located within the Western Conservation District. Jackson County has Frozen Camp and Woodrum, Mason County boasts Chief Cornstalk, McClintic, and Green Bottom, and Putnam County has Amherst/Plymouth. All these areas are management by WV Division of Natural Resources and open to the public.

Additionally with all the great river accesses through-out all three counties, anglers are always finding a great place to fish. Water resources play a vital role in the local economy and locals experiencing nature. Along with river access, five out the seven PL-566 watershed dams have access for the public to enjoy boating and fishing.

B. General Soil Information

The Central Allegheny Plateau lies between the mountains and the Ohio River. Soils have formed on sandstone, shale, and siltstone and are moderately deep to deep, moderately well drained to well drained, with medium to fine textures in this area. Fertility and pH of the soils vary, depending on the parent material. Some of the best agricultural soils in the state are located along the Ohio River.

Glaciers were never present in West Virginia, but they did affect some soil formation in the state. Patterned ground and other evidence of a colder climate can be found in some soils of higher elevations. One such glacial lake that formed was in the Teays Valley area by blockage of the ancient Teays River in present Ohio. Soils formed from these lake sediments are moderately well-drained and normally have fine textured subsoils from the silts and clays that settled from the lake waters.

Other evidence of glacial activity may be found in the Ohio River watershed. Three unique soils occur on terraces and on west-facing hill slopes in this area. Two soils with very coarse particle sizes formed on terraces. One formed in glacial outwash. As the glaciers to the north melted, streams of water carried sediment into the Ohio Valley. The soil formed in outwash is very gravelly and sandy. Many of the gravels are granite and other types of rocks that came from the northern U.S. and Canada and are present nowhere else in the state.

The second unique soil on the terraces is a very sandy soil formed in ancient sand dunes. During the glacial period, dry times occurred. Winds from the west picked

up soil materials and blew them into present West Virginia. Sands are heavier than silts and clays and are not blown as far from the source. Therefore, they tended to deposit in mounds or dunes on the eastern side of the Ohio Valley. These sandy soils can be found from the Northern Panhandle to Point Pleasant. The silty material carried by the wind moved farther east than the sands and was deposited on the western hill slopes along the valley. The soils developed in these materials have very silty textures and while they are very productive soils, they are also highly erodible.

Soil Fertility:

In preparing for the development of this Long Range Plan, we worked with WVU Extension and Soil Testing Lab to determine overall fertility of local soils based on samples sent to WVU for analysis. Without the proper utilization of nutrients, crops/forages do not perform at optimum levels and can reduce cover; thus resulting in excessive sheet and rill erosion and decrease in local water quality due to runoff, turbidity, and excessive nutrient loss from soil particle detachment.

The attached chart was developed by searching by crop code and 50 sample reports were selected within that crop code for corresponding county and year. Tall grass hay and pasture (code 1) was used first, and if there were not 50 samples in that code, either tall grass and legume hay (code 2) or grass pasture (code 5) were used. Those three codes always yielded at least 50 samples. The last section is the total of each level for the three counties. Total percentage is based on the total 150 samples for each year covering all counties. A total number of samples per county submitted for each year was not available.

Nutrient Levels for Grass/Pasture Fields

County	Level	2013		2014		2015	
		P_2O_5	K_2O	P_2O_5	K_2O	P_2O_5	K_2O
		% of Samples					
Mason	Low	48	4	36	0	28	4
	Med	16	40	24	16	24	12
	High	8	36	12	40	12	68
	V. H.	28	20	28	44	36	16
Jackson	Low	32	16	48	16	36	0
	Med	40	24	12	24	36	44
	High	4	40	16	40	12	24
	V. H.	24	20	24	20	16	32
Putnam	Low	44	12	36	8	40	4
	Med	24	32	24	28	2	32
	High	12	52	47	24	12	44
	V. H.	16	4	36	40	28	20
Total	Low	41	11	40	8	35	23
	Med	27	35	20	23	27	45
	High	8	37	11	35	12	29
	V. H.	23	17	29	35	27	3

Soil Fertility and availability of nutrients are of vital concern in our area of the state. Unlike the eastern panhandle of West Virginia, we lack soils that are high in Phosphorous and do not have poultry production as a ready source for this macronutrient. Storage of animal waste from livestock operations becomes increasingly important in our area to replenish Phosphorous and Potassium for forage production.

Acidic soils are also typical of this area of West Virginia. Common soil test results are between 5.2-5.6 pH with a recommendation of 2-3 tons of lime per acre. Low pH results in decreased availability of other nutrients being held in soil solution. Overall low pH results in decreased production of forages for livestock consumption and increases the likelihood of sheet and rill erosion which leads to water quality issues from the lack of ground cover by grasses and legumes.

Prime Farmland:

Prime Farmland is of major importance in meeting the Nation's short and long range needs for food and fiber. Because the supply of high quality farmland is limited, the US Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but is not urban, built up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, and acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. Total prime farmland located in the Western Conservation District is 72,710 acres according to the Prime Farmland reports generated by Web Soil Survey.

b. Socio-Economic Information

The Western Conservation District population is 112,912 according to the US Census in 2014, which is approximately 6% of the total population of West Virginia. The per capita income in 2013 was $23,777 with the median household income equaling $44,990. The pre-dominate race within the District is white/non-Hispanic with only 1% of the population culture being Black and 1% being Hispanic or Latino. The poverty rate sits slightly above the national average at 17% from 2009-2013.

c. Most Common/Most Important Agricultural Enterprises

Western Conservation District boasts 2,151 farms, which is approximately 10% of the total farms registered in the state of West Virginia. These farms encompass a total of 303,555 acres which is again approximately 10% of the total farmland in the state. The general farm size ranges from 50-179 acres with a total of 1,088 farms meeting this criteria. Total income from farm-related sources is estimated at $1.85 million for the three counties. Crop sales in 2012 accounted for $41,033,000 or 79% of the farm income and livestock production sales were $11,075,900 or 21% of farm income for the same year. There are currently 270 farms participating in government farming programs.

The chart below shows where each county ranks within the state of West Virginia for key agricultural production.

	Jackson	Mason	Putnam
Total Value of Ag products	18	7	12
Value Nursery Crops	13	1	4
Value of Livestock	20	10	33
Grains	13	2	15
Tobacco	5	1	3
Vegetables	7	12	6
Hay	4	2	18
Nursery Crops	14	1	2
Cattle & Calves	16	8	31
Milk Cows	9	3	25
Hogs & Pigs	21	1	7
Sheep	15	20	-
Goats	1	5	19
Horses	4	9	19
Soybeans	11	1	-
Corn	14	4	22
Wheat	-	6	7

- = denotes not ranked for the 2012 census.

d. Most Common/Most Important Conservation Work/Practices Historically:

The chart below depicts funding activity in the Western Conservation District for the fiscal years of 2016, 2015, and 2014. On average a total of $630,230 dollars are used for conservation practices through the implementation of an average forty contracts per year.

The statewide fund codes of Seasonal High Tunnels, Strike Force, Cover Crop, and Forestry follow the typical conservation practices. Seasonal High Tunnels and Strike Force funds have proven highly effective in the District, but the remaining state funding programs have been limited due to funding and limited participation.

The local funds codes of Animal Waste and Grassland have been highly effective for implementing sound conservation systems within our three county area. Typical

practices included with our Animal Waste fund code include: Heavy Use Area Protection (gravel & concrete), Fence (board & exclusion), Roofs and Covers, Roof Runoff Management, Water Development, and Nutrient Management. Typical practices included with our Grassland fund code include: Fence (Exclusion & Division), Water Development, Forage & Biomass Planting, and Brush Management.

Fund Code	Total Contract Dollars	Total Contracts
Animal Waste	$ 1,086,495	44
Grassland	$ 449,065	41
Seasonal High Tunnel	$ 140,426	10
Strike Force	$ 186,654	18
Cover Crop	$ 22,049	4
Wildlife	$ 5,069	2
Forestry	$ 934	1
Totals:	**$ 1,890,692**	**120**

e. Established Partnerships:

Western Conservation District & Supervisors:

We have a great working relationship with WCD and have assisted in helping to establish their very successful Agricultural Enhancement Program (AgEP). The District offered cost share assistance in frost seeding, water development, fencing, lime, nutrient management, pollinator habitat development, and cover crop over the past four years. We have worked together in developing the practices offered to the public and Conservation Agency personnel have used NRCS standards, specifications, designs, and job sheets to set the threshold of practice installation.

	2013		2014		2015		2016		Totals:	
	#	$	#	$	#	$	#	$	#	$
Cover Crops	4	$ 4,110	-		0	$ 0	1	$ 546	5	$ 4,656
Frost Seeding	3	$ 3,450	9	$ 8,040	2	$ 1,610	11	$ 5,730	25	$ 18,830
Lime	71	$ 125,663	36	$ 49,550	44	$ 56,338	49	$ 71,036	200	$ 302,587
Fencing	4	$ 5,068	8	$ 20,542	18	$ 64,400	10	$ 23,384	40	$ 113,394
Water Systems	14	$ 29,835	15	$ 44,935	21	$ 82,000	17	$ 40,755	67	$ 197,525
Pollinator Habitat	-		-		1	$ 200	2	$ 400	3	$ 600
Nutrient Management	-		-		-		30	$ 21,390	30	$ 21,390
Totals:	96	$ 168,126	68	$ 123,067	86	$ 204,548	120	$ 163,241	370	$ 658,982

NRCS staff and the District also work together in developing educational programs for agricultural producers and landowners in the counties as well as some educational programs for the local youth including the annual Ag Day workshop,

conservation farmer winners, land judging, Enviro-thon, and other locally planned initiatives.

West Virginia Conservation Agency:

WVCA through the 319 grants program have provided grant funds for six projects in the Western Conservation District over the past three years. These project have generated approximately $123,350 dollars of conservation efforts being focused in our area. With full and part time WVCA staff now being housed in the WCD office, it is anticipated that the participation in the 319 grant program will continue to increase.

There has also been priority given for the development of a watershed proposals to be developed specifically for 319 funding in the Western Conservation District. Cherry Fork watershed in Putnam County has completed the preliminary water testing requirements and staff is currently garnering input from potential participants to determine size and scope of the project.

The Conservation Specialist intends to continue with additional watershed proposals within the three counties over the next several years. Plans are to begin water sampling on another watershed within the year.

Farm Service Agency & Loan Division:

All three counties are serviced by separate FSA offices. All are great to work with and do a great job in getting information set up in the computer for eligibility purposes and will discuss our programs with customers. We have also worked very closely with the Loan Officer housed in Point Pleasant and have been able to do several assignment of payment project through EQIP with their operating loan program.

West Virginia University Cooperative Extension Service:

WVU Extension Service has a large presence in the three counties we work in. All have well established and highly involved agricultural programs as well as youth development initiatives that deal with farming. In the past NRCS, Extension, and Western District have partnered in offering special field days and educational programs on new technologies or enterprises in the area and these events have been well attended. The most successful has been in promoting Seasonal High Tunnel production with EQIP dollars.

Putnam, Mason, & Jackson County Farm Bureau:

All three counties have active Farm Bureau chapters and serve as a great conduit for disseminating information about conservation programs and educational information out to producers that are new to our programs. Each year one or two of the local bureaus will ask NRCS to come and speak at a monthly meeting about what programs are available or about an educational topic. This has served as a great way to meet new producers or catch up with previous participants.

West Virginia Farm Credit:

One of the largest private business supporters of the conservation efforts in the Western Conservation District is the WV Farm Credit office in Ripley, WV. During the past four years they have provided low interest loan to multiple participants in our conservation programs in order for these practices to be installed. They have made loans to over twenty participants that have built animal waste structures as well as five for grazing systems and three high tunnel systems.

WV Farm Credit has also been instrumental in providing funding for education programs sponsored by the Conservation District and have been another great outreach mechanism for NRCS.

West Virginia Division of Forestry & Natural Resources:

Both of these agencies have assisted with the development and installation of conservation plans and practices for their respective disciplines. Both have local employees that could be instrumental in developing new programs or initiatives in the area. Local resources include the state tree nursery at Clements in Mason County and a fisheries biologist housed at McClintic Wildlife Management Area.

West Virginia Department of Agriculture:

Personnel from WV Department of Ag have served as speakers and promoters of NRCS programs in our area. They also have several state owned and operated farms in the area that have served as meeting location for educational programs and field days. They have discussed interest in allowing individuals to operate on state lands in the past to gain insight into farming and have offered property to perform research testing if a situation arises for that need. Mason County holds the Southern Bull Test Sale that promotes local farmers and provides another avenue for outreach efforts.

Local Businesses:

Southern States of Pt. Pleasant, Yauger's Farm Supply, Casto Feed Store Hogg & Zupan, Thomas Do It Center, 84 Lumber, and Carter Lumber are just a few of the local businesses that readily supply the local needs of farmers in our area for conservation efforts. These businesses have worked with us in the past in getting services, equipment, and materials that are needed to meet NRCS specification and standards.

2. Identification and Prioritization of Projects:
   a. Local Work Group Input Summarized:

The local work group met on February 2, 2016 and February 24, 2016 at the Ripley USDA Service Center in Ripley, WV from 10:00-12:00. The meetings were attended by seventeen participants and included the following:

Western Conservation District: Chuck Lipscomb*, Bob Baird, Oscar Harris*, Carla Mullins* and Bob Siebel
Extension Service: John David Johnson*
WVCA: Mark Buchanan
NRCS Staff: Jordan Roush*, Rodney Sites, Barbara Greenleaf*, Dylan Kaib
Farm Service Agency: Dan Shockey* and Jeff Thorn

Department of Forestry: Larry Six
Farm Bureau: Danny Foglesong*
Ag Producer: Luke Hunter & Zelma Boggess
*=denotes Ag producer as well as entity representative

The meeting began by discussing the current mechanism of funding for EQIP cost share dollars versus how the funds will be distributed in the future; as well as discussions of key highlights and parameters that are being used for the new allocation concept of Focused Conservation Approach. Then each land use of Pasture, Cropland, Forestry, Seasonal High Tunnels, Wildlife, and Farmstead were looked at for determining specific resource concerns within each land use. The participants brainstormed on differing ideas and they were recorded on a large sheet of paper on the wall. The person providing the input was given a brief moment to elaborate on their idea in order to give everyone a clearer concept.

Then each participant received stickers to adhere to the resource concern under each land use they felt was most crucial for considering for conservation efforts in the area. A decision was made by the moderator to have the following breakdown on stickers based on the amount of input that was gained during the brainstorming activity. Each participant received: 6 stickers for Pasture, 5 for Cropland, 4 for Farmstead, and 1 each for Seasonal High Tunnels, Forestry, and Wildlife concerns. Participants were allowed to place their stickers on resource concerns that they felt were the biggest priorities. So they could place 1 sticker on a Pasture concern or if they felt that was a large concern that needed attention they could place all 6 stickers on the same concern.

The following is a summary of the concerns and votes received:

Pastureland		**Cropland**		**Farmstead**	
Lime/Low pH	15	Soil Health	19	Manure Storage	15
Inefficient Grazing	14	Cover Crops	12	Confined Feeding Areas	12
Protection of Environmentally Sensitive Areas	8	Extended Grazing – Hay	7	Livestock Water	7
Livestock Water (amount & quality)	7	Pollinator Habitat	7	Heavy Use Area Protection	6
Heavy Use Areas	7	Crop Rotation	4	Composting	3
Autumn Olive	5	Organic Matter Depletion	4	Roads/Livestock Access	2
Over grazing	5	Drainage	4	Pesticide Management	2
Sheet & Rill Erosion	4	Species Selection – Hay	3	Fuel Use Management	2
Stream Erosion	2	Low Nutrients – Hay	3	Feed Management	2
Gully Erosion	1	Lack of Proper Placement of Nutrients	3	Roof Runoff Management	1
Weed Control	1	Compaction	1	Energy Efficiency	0
Wrong Forages	0	Strip Cropping	1	Excessive Nutrients	0
Compaction	0	Deer Damage	0		
Nutrients	0	Tillage Systems	0		
No Management	0	Irrigation	0		
		Environmentally Sensitive Areas Protection	0		

		Pesticide Management	0		
		Invasive Weeds	0		

Forestry		Seasonal High Tunnels		Wildlife	
Invasive Species Control	7	Soil Health/High Salt	13	Habitat Development	5
Fire Roads	6	Drainage	0	Woodland Fencing	5
Fire Protection	0			Food Plots	0

b. Are needed partnerships established? If not, how will they be established?

Strengthening existing partnerships is one avenue that will need to be expanded in order to accomplish several of the initiatives that will be focused on in this Long Range Plan. First and foremost, the need to continue to educate our existing partners with the changes that are taking place with allocation of federal cost share funding. They can assist in educating our customers as to how the program has changed and how those changes directly benefit them.

The second strengthening effort would be to expand educational components of agricultural endeavors with the assistance of WVU and WVSU extension services. As an example: with the development of the seasonal high tunnel program we have experienced a great influx of beginning farmers and customers that are unfamiliar with this type of agriculture production. The old adage: if you build it they will come. Well they have! But now many are trying to work through planting, growing and marketing processes with no education or direct assistance in accomplishing these efforts.

Our plan is to tap into our educational resources of extension service and hold production meetings for Seasonal High Tunnels as well as marketing/business management programs through WV Department of Agriculture. This concept could also be used if a Livestock Initiative is developed to provide a series of educational classes on how to properly manage a type of livestock for good conservation. Or educational programs on proper rotational grazing techniques when applying for a grazing system or nutrient management and feed management consideration when building an animal waste structure.

Federal dollars under EQIP can be used for the development of educational programs and the plan will be to work with the local work group in determining how these programs will be developed and provided to the public. These programs would be open to the general public as well. However by attending these classes a producer could be provided extra ranking points or it would be a requirement if an application was approved for funding.

As an example, NRCS was recently asked to serve on a sub-committee with the Mason County Economic Development Authority to discuss potentially new industries that could be brought to the area for agricultural business development. It is still unclear as to what this partnership could bring to the table for conservation efforts, but with being on the ground floor of potential developments and changes, the opportunity exists to open the door for conservation measures.

Another potential source for partnership development is working with watershed organizations. During the course of the next few years, efforts will need to be made to determine what watershed could be supported by a local watershed organization for the development of a concentrated conservation effort. The development of these organizations will not only help increase outreach efforts in these areas but to also provide input during local work group meetings and provide an outlet for citizens with local concerns.

The final partnership that could be expanded is working with the Great Kanawha and Little Kanawha Resource Conservation & Development Councils (RC&D's) to develop grant and research opportunities for new initiatives in conservation in our area. Since they are a non-profit organization that has their charter in working on conservation issues they have the abilities to gain private and public funds for special projects that are limited to organizations holding a 501c3 status.

c. Priorities for projects and summary of rationale

Since this is the first time for the development of this Long Range Plan, the District Conservationist has chosen to focus on the top four resource concerns identified by the Local Work Group for Pasture, Cropland, and Farmstead. For the land uses of Seasonal High Tunnels, Forestry, and Wildlife only one resource concern will be addressed under the development of this Long Range Plan. Refer to table on page 10 under the heading "Local Work Group Input Summarized" on previous pages.

Evaluation of Resource Concerns:

Pastureland

What are the greatest concerns and why?

Resources identified by the local work group to be addressed on pastureland include: lime/low pH, inefficient grazing, protection of environmentally sensitive areas, and livestock water (quantity & quality).

Lime/Low pH: The focus for many years of the Western Conservation District has been to work with producers to increase the pH of local soils through cost share assistance for lime. They feel this is particularly important on pasture soils in our area. Typical soils in our area are very acidic with typical pH ranges from 5.0-5.5. This low pH restricts the nutrients available in the soil solution to be used by plants for growth and sustainability. By applying lime, we are maintaining a good stand of mixed grasses and legumes that provide a vegetative cover on the landscape and therefore reduces sheet and rill erosion from occurring. By reducing sediment leaving pasture land you are improving water quality because nutrients are not being carried off while attached to displace soil particles.

Practices would include: Nutrient Management and Record Keeping.

Define locations or limits for each resource concern evaluated and reasoning & Estimated Cost will be addressed in the 2017 Long Range Plan revision for this identified resource.

Inefficient Grazing: In general, fields are tremendously over utilized because of the lack of infrastructure on farms to handle any rotational grazing systems. Fencing and watering systems are non-existent or lacking in scope in order to meet the production needs while tempering the conservation needs. By providing cross fencing and watering systems participants could evenly distribute grazing to allow better utilization of forage resources.

Practices would include: Division Fencing, Spring Development, Pond, Well, Pump, Livestock Pipeline, Watering Facility, Prescribed Grazing, and Record Keeping.

Define locations or limits for each resource concern evaluated and reasoning:

The Local Work Group determined to focus this initiative on the Headwaters of Thirteenmile Creek that is located between Jackson and Mason County. The watershed encompasses approximately 25,218 acres and currently has 195 farms registered with the Farm Service Agency. This watershed was chosen primarily based on the existence of application workload within the conservation district according to current applications on hand with NRCS for the previous grassland fund code. The secondary reason for this watershed being selected is that according to TMDL modeling there are thirteen segments within this watershed that has a reduction requirement of over seventy five percent in order to meet baseline criteria. The final decision was made on the watershed being located within two of the three counties located in the Western Conservation District.

Estimated Cost:

Field staff has estimated that in addition to the 195 FSA registered farms within the watershed an additional thirty non-registered farmers may come forward through outreach efforts to participate in the program. Resulting in an overall potential applicant pool of 225. It is estimated that sixty five percent of the applicant pool will meet the minimum criteria for participating in the program. Thus resulting in 147 contracts over a five year contracting period. The average cost under the grassland fund code in the past three years has been $32,076.11 for fourteen contracts per year. Therefore 147 potential contracts at $32,000 per contract would result in an estimate budget for this resource concern of $4.7 million.

Protection of Environmentally Sensitive Areas: Fencing to exclude animals from woodland areas and stream/drainage ways is needed to improve conservation measures for the entire farm. Fencing of woodlands to remove livestock would allow for natural regeneration of shrubs and grasses which would be beneficial to wildlife and forest production. Fencing of waterways would create immediate benefit to streams by reducing erosion and limiting animal waste from the stream. While the Local Work Group recognized the existence of CREP, they still felt that this an important issue and that more farmers would participate in stream bank protection if the areas could be “flashed grazed” or brush hogged to keep buffer vegetative with grasses and legumes.

Practices would include: Exclusion Fencing, Spring Development, Pond, Well, Pump, Livestock Pipeline, Watering Facilities, Critical Area Planting, Mulching, Prescribed Grazing, and Record Keeping.

Define locations or limits for each resource concern evaluated and reasoning & Estimated Cost will be addressed in the 2017 Long Range Plan revision for this identified resource.

Livestock water (quantity & quality): One of the most limiting factors for producers to rotational grazing of animals is the lack of water in the right locations to allow for movement of animals. By providing adequate water, livestock grazing could be evenly distributed across the farm and result in a better stand of forages throughout the grazing season.

Practices would include: Spring Development, Pond, Well, Pump, Livestock Pipeline, and Watering Facility.

Define locations or limits for each resource concern evaluated and reasoning & Estimated Cost will be addressed in the 2017 Long Range Plan revision for this identified resource.

How are they, can they, should they be measured or evaluated for identified pastureland resource concerns:

Several measurement criteria could be used to successfully evaluate the outcome of contract installation under this land use. The first could be the increase in the number of paddocks under contract implementation. Participants would be required to increase their number of fields to allow for at least five rotational grazing pastures to allow for proper forage sustainability during the limited growing season of July and August. Secondly, all practices would be installed within the first 3 years of the contract but an additional two years would be added to the contract with required recordkeeping being provided to NRCS annually. These record keeping documents would be developed by NRCS field staff and be used to show the amount of total pounds of livestock produced on that farm during a calendar year. By keeping these records over the five year period of the contract, NRCS can show an increase in production based on the implementation of a grazing system. These records could also show a net increase in profitability of the farm; thus showing an overall increase in profit, boosting the local economy. Records could also be requested to show where produced meat was being sold and avenues could be developed to process meat locally to address the food deserts that have been identified in our area.

In regards to environmentally sensitive areas, before and after pictures could be used to show an increase in plant diversity in woodland areas and stream bank stabilization from the beginning to the end of the contract. Implementing a water testing program either through the landowner or a partnering agency/organization would add validity to the protection of stream or stream counts on increased micro-invertebrates.

Cropland

What are the greatest concerns and why?

Resource concerns identified by the local work group to be addressed on cropland include: soil health, cover crops, extending grazing on hay land, and pollinator habitat.

Soil Health: Local work group cited the need to encourage good conservation measures that promote and maintain good soil health in row crop production. General comments were cover crops, diversity of cover crops, green manure plantings, and tillage methods use. The group felt these were important aspects of cropland production in order to increase soil organic matter on cropland soils in our area. An increase in organic matter results in better yields, increase soil moisture, reduction in weed competition, and reduction in soil compaction.

Practices would include: Cover Crop, Conservation Crop Rotation, and Nutrient Management, and Record Keeping.

Define locations or limits for each resource concern evaluated and reasoning & Estimated Cost will be addressed in the 2017 Long Range Plan revision for this identified resource.

Cover Crops: Some early adopters have been using cover crops in Mason County for a couple of years, but most corn and bean farmers do not use cover crops. Most cite expense and lack of knowledge of how beneficial cover crops would be for their operation. The Work Group would like to see an increase in cover crops during idle production periods to reduce soil erosion and improve soil health, but also to promote mixtures of cover crop species rather than just a monoculture planting. They believe this project could be a two-tier approach. One to get farmers who do not currently use cover crops to adopt using at least a one to two species planting and the second tier for those that have experience but want to expand on diversity of species being used.

Practices would include: Cover Crop, Nutrient Management, and Record Keeping.

Define locations or limits for each resource concern evaluated and reasoning:

Local work group decided to define this resource concern as prime farmland soils within the conservation district that has a cropping history of row crop production two out of the past eight years. Prime farmland would have to have a slope of less than eight percent to qualify for the program as well.

Estimated Cost:

There is approximately 72,710 acres of prime farmland meeting the criteria of less than eight percent slope. It is further estimated that only fifteen percent of this acreage will meet the cropping history requirement and be interested in participating in the program. Therefore 10,000 acres will be enrolled in the program. Of the 10,000 enrolled acres it is estimated that 3,500 acres will be planted for soil health purposes at an average cost of $85/acre for two years. This will be for farmers that are currently already implementing a cover crop program and would be expanding their types and

diversity of species. The remaining 6,500 acres would be for beginning or limited experience cover crop producers who will average $80/acre for the soil protection N scavenging cover for a two years. Total estimated cost for the program would be $595,000 for experience producers and $1,040,000 for beginning/limited experience producers. Total program cost would be $1,635,000.

Extended grazing on Hay Land: Many livestock operations in the area do not use hay ground for fall grazing due to the lack of fencing and water availability. The Local Work Group stated that by using hay land after the first cutting to subsidize summer grazing slumps of cool season grasses would be of conservation benefit. The discussion also centered on the concept of using these hay fields for stock piling purposes for early winter grazing to reduce the amount of winter feeding that was needed. Overall, extending grazing on hay land would benefit conservation by increasing the grazing area available for livestock operations to reduce overgrazing and allow for direct application of manures to increase nutrients and soil health on hay ground.

Practices would include: Division Fencing, Spring Development, Pond, Well, Pump, Livestock Pipeline, Watering Facility, Forage and Biomass Planting, Prescribed Grazing, and Record Keeping.

Define locations or limits for each resource concern evaluated and reasoning & Estimated Cost will be addressed in the 2017 Long Range Plan revision for this identified resource.

Pollinator Habitat: Decline in pollinator habitat is at an all-time high and many fear what the loss of pollinators would do for the economic stability of row crop and vegetable production in the United States. The Local Work Group felt encouraging pollinator habitat development would be beneficial to our area due to the high volume of row crop production. The scope would be a half acre plot per forty acres as recommended by NRCS and would conform to recommendations of stages of nectar producing plants and shrubs to provide adequate food sources for pollinators.

Practices would include: Conservation Cover, Early Successional Habitat Development and Tree & Shrub Establishment.

Define locations or limits for each resource concern evaluated and reasoning:

Local work group felt that this practice would be very limited in the district but felt strongly that this resource needs to be addressed. Project proposal would be available to the entire area. The limitation for developing pollinator habitat would be limited to row crop producers that meet the 2 out of 8 year cropping history or producers involved with vegetable production. The area for pollinator habitat development must be adjacent to these types of production areas.

Estimated Cost:

Goal will be to implement pollinator habitat development on 50 acres within the conservation district (or to work with 100 producers). Approximately 35 acres will be planted strictly to pollinator habitat with strip disking and mowing occurring the second

and third year of the contract. The remaining 15 acres will also be established with the same measures but would also include tree and shrub establishment of approximately 25 shrubs or trees to diversify the habitat.

Cost for pollinator habitat development $315/acre for a cost of $15,750, disking would be $85/acre for a cost of $4,250, mowing would be $31/acre for a cost of $1,550, and tree/shrub establishment for a cost of $1,005. Total project proposal cost would be $22,555.

How are they, can they, should they be measured or evaluated for the four identified resource concerns for cropland:

The measurable outcome for this land use would be to increase overall organic matter content within the soils of row crop fields on prime farmland soils in the Western Conservation District. Record keeping would also be used during these three year contracts to show an increase in yield rates, increase in profits, decrease in tillage methods, ability to plant in fields earlier in the growing season, and the increase in moisture holding capacity of the soils.

In regards to extended grazing on hay land, a measurement would be similar to that used under the pasture measurement above. Farmers would be required to keep documentation showing the overall increase in pounds of meat produced on farms due to the increase in forage availability. Additional data that could be gained would be records showing the decrease of winter feed cost by extending grazing into the fall/early winter of the year.

Farmstead

What are the greatest concerns and why?

Resource concerns identified by the local work group to be addressed on farmstead include: manure storage, confined feeding areas, livestock water, and heavy use area protection.

Manure Storage & Confined Feeding Areas: Waste Management has been a concern within the Western Conservation District for many years and continues to be at the forefront for resource concerns needing to be addressed. Most livestock operations in the area are cow-calf producers that winter feed brood cows and/or stockers. Manures at these winter feeding sites cannot be contained and nutrient loaded runoff ends up degrading water quality throughout the watershed. Providing manure storage structures to catch and store this by-product provides needed nutrients and builds soil organic matter on forage based farms. This greatly reduces the excessing nutrients entering drainage ways but also allows nutrients to be applied when needed for forage growth in the spring of the year.

Due to the high concentration of animals and high clay content of local soils these winter feeding areas quickly become extremely eroded and compacted areas that pose a critical resource concern for soil erosion and water quality. These areas increase surface runoff which carries manure and soil particles to streams and waterways. Providing concrete feeding areas with adjacent manure storage will provide an environmentally sound suite of conservation practices to combat this resource problems.

Practices would include: Animal Waste Facility, Heavy Use Area Protection Gravel & Concrete, Fence, Roofs & Covers, Roof Runoff Management, Underground Outlet, Subsurface Drains, Critical Area Planting, Mulching, Nutrient Management, Waste Utilization, and Record Keeping.

Define locations or limits for each resource concern evaluated and reasoning:

The Local Work Group determined to focus this initiative on the Headwaters of Eighteenmile Creek that is located between Mason and Putnam County. The watershed encompasses approximately 22,261 acres and currently has 160 farms registered with the Farm Service Agency. This watershed was chosen primarily based on the existence of application workload within the conservation district according to current application on hand with NRCS for the previous animal waste fund code. The secondary reason for this watershed being selected is that according to TMDL modeling there are fourteen segments within this watershed that has a reduction requirement of over eighty five percent in order to meet baseline criteria. The final decision was made on the watershed being located within two of the three counties located in the Western Conservation District.

Estimated Cost:

Field staff has estimated that in addition to the 160 FSA registered farms within the watershed and additional twenty non-registered farmers may come forward through outreach efforts to participate in the program. Resulting in an overall potential applicant pool of 185. It is estimated that forty percent of the applicant pool will meet the minimum criteria for participating in the program. Thus resulting in seventy four contracts over a four year contracting period.

These contracts will be under contract for a duration of eight years once the contract has been obligated. One of the largest frustration experience by NRCS staff and local work group members was the mismanagement of animal waste storage facilities in the past. By requiring the landowner to remain under contract for a minimum of eight years this will allow field staff to provide follow up and requirements of record keeping in order to provide guidance and proper usage of these facilities. It will also allow time for updating and tracking of nutrient plans and program effectiveness based on repeated soil and manure testing.

The average contract cost under the animal waste fund code in the past 3 years has been $72,432.93 for an average of 15 contracts per year. Therefore seventy four potential contracts at $72,000 per contract would result in an estimate budget for this resource concern of $5.4 million.

Livestock Water: Availability of Livestock Water was considered the third resource concern for Farmstead land use by the Local Work Group. This discussion focused on the availability of water in existing feeding barns and structures, but could also be extended to farmers that manage their winter feeding operations by moving and/or unrolling round bales on low fertility soils. By rotating feeding areas throughout the winter, livestock water availability is very limiting and can cause severe erosion issues when animals have to return to the same source for water.

Practices would include: Spring Development, Pond, Well, Pump, Livestock Pipeline, Watering Facility, Cistern, Roof Runoff Management, and Underground Outlet.

Define locations or limits for each resource concern evaluated and reasoning & Estimated Cost will be addressed in the 2017 Long Range Plan revision for this identified resource.

Heavy Use Area Protection: Many areas of farms have small areas that are degraded due to over use which results in compaction and erosion issues. Areas identified by the Local Work Groups included: entrance and exits around barns, main roadways through commonly used gates, around water sources and feeding locations. The group felt by addressing this resource concern a reduction in erosion would occur as well as a greater ability to address other resource concerns on the property.

Practices would include: Heavy Use Area – Gravel & Concrete, Access Road, and Fencing.

Define locations or limits for each resource concern evaluated and reasoning & Estimated Cost will be addressed in the 2017 Long Range Plan revision for this identified resource.

How are they, can they, should they be measured or evaluated for the four identified resource concerns for Farmstead:

Soil fertility is of major concerns for any agricultural producer in the state. Macro-nutrients of nitrogen, phosphorous, and potassium are the highest cost input in producing a commodity crop and forage based operations. This is especially true as outlined in the soil description information on soil fertility trends in our counties. Greater than 50% of our agricultural lands test low or moderate in required phosphorous in our area. This is a limiting factor for production agriculture and can be offset by the use of animal waste if it can be properly stored and utilized at times as needed for plant uptake. Measuring practice benefits for the land use would be a requirement of yearly soil sampling to show an increase in needed nutrients and a cost savings analysis of reduction in commercial fertilizer requirements. This would be accomplished by having all conservation practices installed within the first three years of the program but requiring the participant to keep records and follow a comprehensive nutrient management plan for an additional five years.

The landowner or one of the partners would collect and submit water samples of the closest intermittent and blue line stream near newly constructed animal waste structure during the contract period to show improvements to the water quality. Also looking at an increase in micro-invertebrates in the stream channel would show an improvement to water quality. The information collected would be used in overview reports as to not single out any particular producer participating in a Farm Bill Program.

Forestry

What are the greatest concerns and why?

Resource concern identified by the local work group to be addressed on forestry land use was fire roads. Nearly forty percent of the land cover in the Western Conservation District is forested and consists of a vast expansion of deciduous hard wood trees. This is a very valuable resource to our area and the landowners that we serve. Forest fires are one of the most devastating disasters that can easily occur in woodland areas and can cause astronomical financial loss to not only the standing timber, but to houses, business, commodity crops, and animals. With the development of a road system through heavily woodland populated areas precaution can be in place to allow for quicker response times by fire fighters. Fire roads could also be planted back to vegetative plots that would be advantageous to wildlife.

How are they, can they, should they be measured or evaluated:

Development of fire roads could be measured in miles of roads constructed for access to forestland. Local Work Group would work with WV Division of Forestry to determine an overall value of having increased access to large woodland parcels by reducing the effects of damage cause by woodland fires. This could then be used to extrapolate data to show the savings this type of fire protection would provide to the community for structural and property damage from a forest fire event.

Extent of resource concern:

Fires in forests tended to be larger than other vegetation fires. Only three-fifths (59%) of the forest fires were less than an acre, while 9% consumed more than ten acres The 610,500 outside and other fires reported in 2015 caused approximately seventy civilian fire deaths, nine hundred civilian fire injuries, and $237 million in property damage. Furthermore, fire deaths and injuries significantly increase after the age of fifty due to the inability for older Americans to get away from fire disasters. Considering that most of West Virginia's population is older than fifty this greatly increases the likelihood of death rates due to forest fires.

The estimated average size of a vegetative trail would be eight feet wide by three thousand feet long on an average forty acre property. An area along the main roadway would be established with rock and geotextile material to allow for "pull off areas" for fire trucks, fire fighters, and equipment needed to fight a fire.

Define locations or limits for each resource concern evaluated and reasoning used:

Area Forester Larry Six and Fire Forester Tom Withrow reviewed forest fire occurrence maps for the last three years. They identified the watershed of Thirteenmile Creek in Mason and Jackson County as having the highest incidence of forest fires. The second watershed was the Hurricane Creek watershed in Putnam County.

Landowner would be required to have a forest stewardship plan that has been developed with the designation of fire prevention as a resource concern. Technical responsibility for this resource concern will be the responsibility of WV Division of Forestry personnel and NRCS personnel.

NRCS would rely on WV Division of Forestry personnel to serve as the technical experts on this project and follow their guidelines for the practice of Fire and Catastrophic Risk Reduction

Practice list to address resource concerns identified:

Fire Roads: Animal Trails & Walkways- Vegetative, Animal Trails & Walkways – Rock and geotextile, and Stream Crossing - Culvert

Estimate of cost to EQIP:

It is estimated that the average 40 acre timber stand would require 24,000 square feet of vegetative trail at a cost of $0.30 per square foot resulting in a cost of $7,200 per contract. A parking area of for fire equipment would be one thousand square feet of rock and geotextile material at a cost of $1.30 per square foot resulting in an average contract cost of $1,300. Therefore a general cost per contract would be $8,500.

Thirteenmile creek watershed consist of 49,830 acres. An approximation that seventy landowners in the Thirteenmile Creek Watershed would be interested in protection forestland resources through fire prevention measures. This would result in a cost of $595,000 for seventy contracts with an additional $15,000 for potential culvert installation. Total program cost would be $610,000.

Seasonal High Tunnel

What are the greatest concerns and why?

A resource concern identified by the Local Work Group to be addressed on land used for vegetable production in high tunnels and open land was soil health, specifically in regards to increased salt deposition from irrigation. Due to irrigation protocols for producing vegetable crops in high tunnels there is concern that excess salt will be stored in the soil and cause problems with crop yields. The Local Work Group is considering looking into cover crops, crop rotations, tillage, or other conservation practices that could reduce the build-up of excessive salts.

How are they, can they, should they be measured or evaluated:

Soil samples would be used to measure the amount of potential excessive salt build up under high tunnel growing conditions. Conservation cover would be incorporated to “use up” the salts from irrigation and improve soil health. Yield records would also be used to determine if conservation practices being installed are providing a benefit to reducing excessive salts.

Extent of resource concern:

Forty two high tunnels have been installed in the Western Conservation District with an average of seven per year. The project proposals would be to incorporate existing high tunnels by adopting these conservation measures and to provide assistance for new high tunnel obligations to incorporate conservation practices in their contracts during the next five years.

Define locations or limits for each resource concern evaluated and reasoning used:

This program would be available to existing high tunnel participants that are actively managing their high tunnels to produce a crop. By working with existing high tunnel producers we can determine a better protocol to use with future contracts in developing good soil health. It is anticipated this project would be for three years cost share assistance and one year follow up with record keeping to determine increase in soil health initiatives.

Practice list to address resource concerns identified:

Practices would include: Cover Crop, Crop Rotation, Mulching, Nutrient Management, and Record Keeping.

Estimate of cost to EQIP:

The general size of the high tunnels is less than one-fourth acre in size. Total cost per acre for proposed practices would be $598.71/acre or $150 for high tunnel acreage. These contracts would be three years in scope for a total of $450/contract for a total of forty potential applications. Total proposal budge would be $18,000.

Wildlife:

What are the greatest concerns and why?

A resource concern identified by the local work group to be addressed on wildlife habitat was the need to develop more diversified habitat for species of concern. West Virginia NRCS has identified areas of the state that are optimal for Bob White Quail Range. The plan will be to incorporate food plot corridors on farmland to encourage quail and improve nesting areas through forage selection and diverse land management planning.

How are they, can they, should they be measured or evaluated:

Development of food plots specific to quail habitat development would provide an increase in diversity of wildlife and potential return of a species that is threatened in our geographical area. Local community groups or a Master Naturalist program through Division of Natural Resources could be used to complete bird counts to determine changes in quail habitat in our area.

Extent of resource concern:

Wildlife land use for quail habitat is centered primarily in Mason County but has areas of northern Putnam and along the Ohio River Corridor in Jackson County. Individual Project Plan for this land use will focused on these areas.

Define locations or limits for each resource concern evaluated and reasoning used:

The local work group was in agreement to develop a proposal for this resource concern based on the existing maps that identify the potential land area for quail habitat in Mason, Putnam, and Jackson Counties. Total acreage included in the Bobwhite Quail Range is approximately 450,000. It is estimated that fifteen percent of

the total acreage, or 67,500 acres would be on suitable land that could be enrolled in this project proposal. It is also anticipated that participation in this proposal would be very limited due to the landowners that are interested in quail habitat improvement.

Practice list to address resource concerns identified:

Habitat Development: Upland Wildlife Habitat Development – Disking, Field Border Establishment and Prescribed Burning Plans.

Estimate of cost to EQIP:

Average size of quail habitat development would be approximately nine acres. This would include three different areas that would be approximately three acres each in size. Each year for the first three years a new area of habitat would be developed from open areas (marginal pastureland, hay land, or odd areas of row cropland). The plan will be to establish a firebreak around an open field and complete a prescribed burn by a certified burning specialist or through the local fire departments. Prescribe burning provides essential removal of thick grass cover and allows for natural regeneration of an open surface for quail to nest and escape predators. Firebreaks would be planted to partridge pea and lespedeza for a food source. After the first year, prescribed disking would occur to maintain a more open surface for quail to survive. These contracts would be six years in scope to allow for at least one prescribed disking to occur on the last plot that was established.

Year one expenses would be for a prescribe burn plan and field border at a cost of $415. Second year expense would be for a prescribe burn plan and field border on second plot and disking first plot for a cost of $665. Third year would be the establishment of plot three with prescribed burn plan and field border and disking of plots 1 and 2 for a cost of $920. The final year of the contract would be a disking of all three plots for a cost of $756. Total average contract would be in the amount of $2,756. A proposal goal of two thousand acres to be enrolled in program would make the total proposal cost approximately $615,000.

d. Define completion in stages (if needed) and in total:

The general timeline for any individual project plans will be similar in scope and implementation. The first year the proposal of funding would be minimal with a major emphasis to be placed on outreach efforts to the community and doing direct one-on-one contact with potential producers. An estimation of twenty percent of the allocated funds would be used for contract development during the inaugural year of the project.

During the second and third years of the individual project, plans should be in full swing and staff will be focusing much of their efforts on plan development, contract obligations, and practice installation. An estimation of year two would be an expenditure of 35 percent of total allocated dollars and year three would be 45 percent of project disbursement.

Any subsequent years planned in contracts would be for record keeping and maintenance as outlined in the project proposals. This has been one area that the Local

Work Group and NRCS staff feel is very important to the success of the program by adding additional years the producer is under contract so that oversight can be provided by NRCS and/or their partners to ensure that federal tax payer dollars are being used as intended during conservation planning. Follow up by staff or partners would be minimal with a simple site visit to verify that the intent of the program is still in place and a review of records to determine the measurable that were designated in the individual project plans are being provided.

The Local Work Group feels that a participation rate of 60-70 percent for any given resource concern being addressed for a designated area or purpose would be an overall successful program. Another outcome that we are hoping to obtain from the measureable outcomes is to be able to show a cost benefit analysis of conservation dollars spent versus return on investment through better utilization and protection of local resources.

3. Evaluation of Program Suitability:

   a. Can it be addressed by EQIP?

      Most of the resource concerns identified by the Local Work Group can be addressed by EQIP program funding. Current NRCS standards, specifications, and job sheets are available for all practices identified in the next section of this long range plan to address the resource concerns identified for each land use.
      Exceptions to that statement are:
      Forestry: Development of a new standard that would be used to address the installation of fire roads as a cost sharable item.
      Wildlife: Approval to use prescribed burning as an eligible practice in the state when set criteria is met.

      The Western Conservation District's Agricultural Enhancement Program for lime is extremely successful in meeting the needs of producers in the area. Due to the District Supervisors making lime application funding a high priority of their program budget, there have been no lime applications left unfunded in Western Conservation District in the past two years.

   b. Estimate of staff resources needed:

      Current staff includes a District Conservationist, two Soil Conservationist (one each in Point Pleasant and Ripley), and two Soil Conservation Technicians (one each in Point Pleasant and Ripley). The Soil Conservationist in Ripley and the Soil Conservation Technician in Point Pleasant are new hires as of May 2016. In order to be fully trained to operate effectively independently will take at a minimum of one year. But once fully trained expectations are that current staff will be able to manage expected workload that will be provided through the development of Individual Project Plans and this Long Range Plan.

c. Needed/Desired Partnership and their role

Greater Kanawha & Little Kanawha Resource Conservation & Development Councils:

Both of these organizations are classified as 501(c)3 organizations with a focus of Land Management, Land Conservation, Water Resources, and Community Development. These ideals fit perfectly with serving in partnership with the concepts of this Long Range Plan. Grants or internships could be gained through these organizations to provide extra staff to spearhead initiatives and testing for environmental benchmarks and improvements.

Volunteer West Virginia:

This is another non-profit organization in the state whose charter is to help organize volunteer efforts in West Virginia. This organization also administers the federal AmeriCorp program in West Virginia which includes the VISTA program. VISTA's are year-long volunteer positions that work with local non-profits to provide capacity building opportunities for the community. Typically the sponsoring organization has to supply office space, computers, and assist with a percentage of the employee's salary.

Possibility could exist to work with the RC&D Councils to secure a Volunteer WV VISTA employee that would specifically work with this Long Range Plan to develop community watershed efforts to help with water testing and organizing data to show conservation cost versus increase profitability. NRCS, Western Conservation District, and/or WVCA could partner in furnishing required VISTA expenses.

Internships could also be arranged with WVU and WVSU during the summer to provide the labor to complete water testing, soil testing, manure sampling, and wildlife species improvements to assist with determining the measurable impacts from Individual Project Plans. These positions could be managed by the VISTA coordinator.

Finally WVSC through 319 planning monies could be tapped into to cover the cost of needed lab work to determine measurable from these projects and allow them to use this data to secure other funding from 319 grant funds.

Xerces Society:

Educational programs and technical expertise for pollinator habitat development would be a great partnership to develop that could be used in many aspects of our identified resource concerns listed. Special funds or grants may also be able to help with offsetting the cost of the expense in establishing pollinator friendly conservation practices.

d. Identify project interest/participation/outreach needs

Steps will be taken by NRCS staff and partnering agencies to disseminate information to local landowners and agriculture producers in areas selected for funding under the new programming effort. Articles will be submitted to the local news media

outlets to inform taxpayers of the availability of the program and how to proceed with making an application.

A power point presentation will be developed for use at public meetings in order to inform the general public concerning the opportunity to receive funds for conservation measures.

Finally, the District Conservationist will use ArcGIS software to overlay boundaries of the designated area of project funding over FSA Common Land Unit layer to directly identify potential participants in the program. A direct mailing will be sent to those identified by FSA as the owner and operator of the farm notifying them of the programs availability.

e. Other factors that may have impacts upon success

Short term:

The first immediate obstacle to be addressed is getting participation in certain resource concerns that have not be traditionally handled by programs in the past or have had little participation. This would especially be true for working with horse owners, cropland farmers, and potential quail sites.

The second obstacle may be even getting the rates of participation that we anticipate. Even with great cost share programs, not everyone wants to participate in a government sponsored program.

The third and potentially the biggest concern is getting participants that are willing to allow water sampling and do record keeping to show impacts and measurable of what these conservation practices are creating. This concern will be reduced after the first few years, once a few overview reports can be provided showing that individuals will not be identified or names disclosed.

Long term:

The biggest concern of the Local Work Group is that local landowners will be discouraged from participating in future funding cycles due to designated areas of concerns for cost sharing assistance. By working in small watersheds and not having funds available district wide clientele will be less likely to seek technical and financial assistance from the programs.

A second long term concern is that project funding for one area of the District may be viewed as discriminating against other areas within our boundaries.

Finally the ability to bring other partners and funding to the table to address these resource concerns that have been outlined in the project proposals. With economic downturns and continued reductions in state and federal budgets, monies will be limited that can be used as match money for projects, positions, and testing.