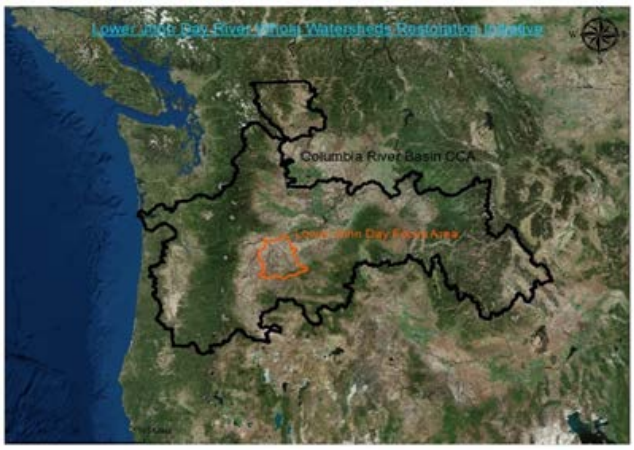
LOWER JOHN DAY RIVER WHOLE WATERSHEDS RESTORATION INITIATIVE



This project proposal covers the Lower John Day portion of HUC #17070204, as well as the portions of lower Willow Creek included in HUCs 1707010404 and 1707070405. This incorporates around 1,575,000 acres of ground. These Watersheds drain into the John Day River or directly into the Columbia River. The project area is centered on Gilliam County in the heart of the Columbia River Basin CCA and includes portions of Morrow, Wheeler, Sherman, and Wasco Counties.

Approximately one-half of the subbasin is rangeland, and the rest is forestland and areas used for grain crops, hay, and pasture. The main resource concerns on the rangeland and forestland include overstocked pine, juniper encroachment, invasive weeds, loss of fish and wildlife habitat, and a perceived high cost of conservation. Sheet, rill, and wind erosion are concerns for cropland as well as maintaining soil health. Crop waste management and a lack of riparian vegetation along streams are concerns for grassland and pastureland. A lack of seasonal flows in local streams causes issues to arise in all aspects of the Lower John Day basin for agriculture and wildlife concerns.

There are only a few hundred farms and ranches in the Lower John Day subbasin. Most of these are grain crop operations in Gilliam and Sherman Counties that are more than 1,000 acres in size. Many livestock operations are 10-20,000 acres in size. Much of the forestland in Wheeler County consists of areas less than 1,000 acres in size. Much of this forestland is under private industrial ownership and is used for timber and grazing. Other private forestland and rangeland is used for fee hunting, which has become a significant source of income for area ranchers. The high percentage of large landowners works very much in our favor as conservationists. Each landowner we reach out to has the potential to open up many thousands of acres of land for restoration activities.

The John Day River is the longest free-flowing river in the western United States. With no dam obstructing fish passage through the entire system the John Day River offers a unique opportunity to achieve large scale Salmon and Steelhead recovery within the Columbia River basin. This focus area includes vital spawning and rearing habitat for the Mid-Columbia River Distinct Population Segment of Steelhead. Small numbers of Coho Salmon are also making a resurgence in this historic spawning area. In addition, the John Day River is a migration corridor for Chinook Salmon who use the lower tributaries as refuges on their way to and from upper basin spawning grounds.

This area, known as the Columbia Plateau, is heavily dependent on agricultural production as the major economic driver. Along with dry-land wheat crops include irrigated grains, corn, potatoes, hay, fruit trees, and assorted row crops. Livestock production is primarily beef cattle with some scattered sheep operations and a number of large dairies. Timber production was once a mainstay in portions of the focus area but has been in decline for several decades as public forest ground has been taken out of production. Still private landowners conduct routine logging and thinning projects on their properties.

The single most limiting factor in the Columbia Plateau and surrounding areas is water. The region covered by our focus area falls within annual precipitation ranges of 8-20 inches per year. In this arid climate precipitation primarily comes in the form of late winter snow and early spring rain storms with the rest of the year lacking in any significant accrual of moisture. While most of the area relies heavily on grazing and dry-land farming, irrigation along the bottom lands surrounding streams and from deep groundwater wells has been steadily increasing. As the demand for agricultural water goes up the supply

seems to be dwindling even further. The effects of long term climate change seem to be focusing our regional precipitation into a shorter window of time each year. This creates longer lasting summer weather patterns without rain. Many of the streams in the area which are relied upon by both farmers and wildlife are going dry for increasing stretches each year. The two largest and most important Steelhead spawning and rearing streams in the area, Thirtymile Creek and Rock Creek, have sections which now go completely dry for several months each summer. Flow loss also occurs in Pine Hollow, Jackknife, and Grass Valley Canyon. These dry sections trap thousands of Steelhead smolts and massive die-offs occur as the last remaining pools disappear. Farmers attempting to raise irrigated crops are put into direct conflict with fish and aquatic species as they execute their legal water rights.

The operators of the larger farms in the subbasin tend to understand and appreciate the benefits of conservation and have a history of adopting conservation systems. The operators of the smaller farms, particularly the newer owners, tend to lack some awareness of both on-farm and local resource concerns. They are apt to have the resources and inclination to adopt conservation systems, but they may require additional technical assistance.

Social capital in the Lower John Day subbasin is moderate. In the part of the subbasin where the operations are larger, the mainstream agricultural communities flourish and are supportive of conservation. In the part where the operations are smaller or are run by industry or absentee landowners, the community is not as strong, experienced, or adept at addressing local issues and solving community wide problems.

This focus area was chosen because it represents a fairly uniform group of land uses within a contiguous area of the Columbia River Plateau. The Columbia River is the most significant river system in the western United States. Its value to agricultural production, transportation, power generation, recreation, and fish and wildlife habitat cannot be overstated. The partners within the area have a long history of cooperation and a shared dedication to the implementation of natural resource protection and restoration projects. Within the Lower John Day focus area the resource issues being addressed are consistent and have long been faced cooperatively.

The natural resource concerns identified in this proposal were identified over time through various means. Especially helpful were the ODFW “Mid-Columbia River Conservation and Recovery Plan”, The NOAA Fisheries Service “Recovery Plan for Mid-Columbia Steelhead”, The BLM “John Day River Management Plan”, and the Oregon Water Resources Department “John Day Basin Report”. Multiple watershed assessments conducted by local SWCDs and Watershed Councils also identified concerns. These include assessments of Thirtymile Creek, Rock Creek, Lonerock Creek, Hay Creek, Scott and Ferry Canyons, and Butte Creek. We also consulted with local NRCS District Conservationists in Gilliam, Wheeler, Morrow, Wasco and Sherman Counties. NRCS county Long Range Plans, CIS Project Areas, and Local Work Group meetings also provided information on natural resource concerns within the proposed project area. Additionally the Gilliam SWCD sought input from landowners and land managers via District meetings, partnership meetings, landowner conversations, and industry group meetings.

Of the more than 1.5 million acres of ground in our focus area we are targeting 295,000 acres for enrollment in the CSP program via RCPP funding. Additional EQIP program sign-ups will account for conservation measures being conducted on approximately 250,000 acres of additional ground. We will also continue our efforts to enroll lands and landowners in the Conservation Reserve Enhancement Program (CREP). Each year the dedicated CREP Technicians employed by our Conservation District enroll thousands of acres of riparian ground into the CREP Program. This constitutes a significant financial and technical contribution to natural resource restoration and protection within the focus area.

Our goal is to assist landowners in a way that shows them the benefits of adding natural resource concerns to their land management decision making processes. In this way we will create long lasting impacts which will endure long after these program enrollments end.

One thing that we have going for us in this effort is the high number of large landowners located within the focus area. This means that we can achieve great economies of scale with every program enrollment or project conducted. We can gain access to thousands of acres with each landowner or producer we bring to the table. This will allow us to have massive positive influences on entire watersheds with only a few landowner contacts. The investment in program contracts with these landowners will have an oversized pay-off in the end.

The partnering agencies involved in this FIP proposal all have extensive histories in working with the producers in the focus area to complete restoration projects. Each works on a continual basis to identify issues, design fixes, obtain funding, and implement projects. The Lower John Day Working Group has applied for nearly $16 million in funding through the NRCS Regional Conservation Partnership Program. A funding decision for this program will be made by NRCS in November 2014. With a concentrated funding pool available to match partner funds against we have the potential to double the amount of conservation completed during the life of the RCPP and FIP programs.

The alternative we face without an infusion of FIP funding is to continue along the same slow path of conservation. The Partners will continue to complete projects as match funding becomes available. The NRCS will continue with small scale focused funding pools which leave large portions of the area unable to participate until those pools move into new areas. Strong projects go uncompleted simply because they lay outside of the designated funding pool areas. Those landowners then turn to the Partners at SWCDs and Watershed Councils, only to be told that we don't have the match available to receive grant funding. But with FIP funding we can ensure program inclusion to all of those that have been waiting on the sidelines. Additional projects will be completed by the Partners using the RCPP funding as match to secure grant funds. With FIP funding we can accomplish twenty years of conservation in just five.

The Lower John Day Working Group

Partner Name	Type	Partner Role and Responsibilities
Gilliam SWCD	CD	Provide overall project coordination, provide producer technical assistance, lead outreach and education, condu monitoring, provide funding for conservation practices, and provide administrative services.
Gilliam-East John Day W.C.	CD	Provide producer technical assistance, lead outreach and education, conduct monitoring, provide funding for conservation practices, and provide administrative services.
Sherman SWCD	CD	Provide producer technical assistance, lead outreach and education, conduct monitoring, provide funding for conservation practices, and provide administrative services.
Morrow SWCD	CD	Provide producer technical assistance, lead outreach and education, conduct monitoring, provide funding for conservation practices, and provide administrative services.

Wasco SWCD	CD	Provide producer technical assistance, lead outreach and education, conduct monitoring, provide funding for conservation practices, and provide administrative services.
Mid John Day/Bridge Cr. W.C.	CD	Provide producer technical assistance, lead outreach and education, conduct monitoring, provide funding for conservation practices, and provide administrative services.

This FIP program will begin with massive outreach and education efforts being directed by the Partners towards producers in the focus area. This will include letters, phone calls, newsletter articles, producer meetings and workshops, published notices, and attending local producer advocacy group meetings. These outreach efforts will be led and funded by the partners in each area. Following an initial large push, specific producers in high value portions of the focus area will be targeted in an effort to reach those landowners and land managers we most want to see become involved in natural resource restoration activities and programs. Outreach and education efforts will continue throughout the life of the FIP program with extra efforts being made each year to ensure program goals are being met.

Technical assistance to producers will be provided by the Lower John Day partners. Partners will serve as the first line of assistance for producers. The partners will provide farm planning, project design and layout, and practice certifications. NRCS staff will provide engineering oversight, contracting, and ensure that partners are meeting NRCS specifications.

Project implementation will be highly dependent on project enrollment numbers and timing. Partners will support project implementation through NRCS programs where applicable. Partners will also utilize EQIP program project funds to leverage additional project funding to complete complementary projects within the focus area.

Monitoring will be conducted throughout the life of the FIP. Annual reports will be submitted as outlined in the cooperative agreement. A final report covering the full benefit of the FIP will be submitted upon completion of the term of the program.

Through this proposal we plan to complete 16,000 acres of Western Juniper Infestation removal. This will be accomplished by utilizing RCPP funding to conduct 8,000 acres and leveraging those funds into companion projects funded through restoration grants to address and additional 8,000 acres. The contribution funding will come from a combination of Oregon Watershed Enhancement Board grants and funding contracts with Bonneville Power Administration through the Warm Springs Indian Tribe. We estimate the acreage reduction in juniper infestation will result in an increase in groundwater recharge/stream flow of 640,000,000 gallons of water each year.

An additional 2,000 acres of forest stand improvement will also be conducted. Again this is slated as a 50/50 split between RCPP funding and partner sourced contributions.

Results will be monitored via measurements taken at designated spring sites nearby the planned tree removal areas. Baseline data will be collected prior to treatment and flow changes will then be recorded at regular intervals to determine the increase in flow generated by the juniper removal. By collecting data directly from the spring sites we will be able to monitor the change in ground water recharge and estimate stream flow changes without influence from weather events. Direct stream flow measurements are also being considered but the variability in stream flows can often be the result of precipitation influencing short term stream flow changes. We will however log flow start and stop dates in the seasonal streams of the

focus area. The hope being that we will see a reduction in the amount of time each year that the streams are dry, a reversal of current trends.

The installation of WaSCBs and field terraces along with the restructuring of existing outdated structures is another major goal of our proposal. 17 miles of new and restructured field terraces along with 3-400 WaSCBs are planned. Again, the terraces and WaSCBs will be funded through a combination of RCPP and partner sourced funds. Oregon Watershed Enhancement Board grants and Bonneville Power Administration funding will be the crux of the project match.

The new and restructured field terraces will be designed to be friendlier to the larger equipment necessary for modern conservation tillage. The alternative to restructuring the terraces is for them to be removed completely, an option that most conservationists do not want to see happen.

This construction will increase the area's ability to capture precipitation in the Winter and Spring and cause it to infiltrate into the ground rather than run off into streams and be lost. The infiltrated moisture will then be released slowly over time, increasing late season flows. Captured moisture will also be available to grow improved crop and forage stands.

The WaSCBs and Field Terraces will also act to capture sediment created by precipitation landing on disturbed agricultural fields. This sediment capture will prevent the material from moving overland into streams which contain vital Steelhead spawning gravels. Sedimentation of spawning gravels results in the destruction of eggs before they are bale to hatch.

Chemical residue from herbicide, pesticide, and fertilizer treatments on agricultural fields are another issue we are seeking to address through the construction of WaSCBs and field terraces. Nutrients and chemicals are captured along with water runoff and prevented from reaching streams where they can have negative impacts on fish and aquatic species. Edge of Field monitoring will be included in many of the program contracts with producers.

To improve cropland health we have set a goal of instituting 84,000 acres of direct seed and residue management practices. Through enrollment in the EQIP program and in conjunction with partner sourced funding contributions we hope to reach producers who have not yet adopted conservation farming practices. In the highly erodible soils of the Lower John Day Basin loss of farm soils is a major concern, both for reduced agricultural yields and the sedimentation of steelhead streams which occurs. By providing technical and financial assistance to landowners we hope to make a major shift in the farming practices of the region. Currently we estimate that around 60% of farmers in the Lower John Day utilize some form of conservation tillage on their fields. We would like to see that number move to 80% and RCPP funding will be a major asset in that effort.

A healthy riparian zone is the hallmark of a functioning watershed. Often the results of agricultural practices are most evident in the riparian zones in and around farms and ranches. Many of the upland treatments described in this proposal will have beneficial results in the streams and riparian zones. Other measures to be implemented are specifically designed to address riparian issues. 50 miles of NRCS RCPP funded riparian and pasture fencing is planned through this proposal. An additional 50 miles of partner funded fencing will bring the total up to 100 miles of riparian and pasture fencing.

In addition, 80 upland spring developments designed to reduce livestock and wildlife reliance on streams will be incorporated into NRCS program funding and associated partner funded projects. The reduced reliance on streams as a main source of water will allow for more even use of pastures, healthier riparian areas, and reduced impacts on fish and aquatic species through nutrient inputs to the streams. As a component of many of the other planned treatments we will conduct 2,000 acres of herbaceous weed control. This will enhance the results of many projects as well as be a stand-alone practice when needed.

Noxious weed infestation is a serious and growing threat to agricultural production throughout the focus area.

Several innovative and forward-thinking aspects have been built into this proposal and the associated activities. Some of these can be seen in the list of potential enhancements (previous page) that the partners have developed in conjunction with local NRCS District Conservationists. Several new or updated enhancements have been suggested which we feel fit the specific needs of the area. Some of these enhancements could also be useful in other areas. Additionally, several of our methods for addressing issues are on the front lines of natural resource protection. This can be seen especially in our work towards the removal of Western Juniper infestations. Traditional methods of controlling juniper are based around hand cutting or mechanical removal with large equipment. Both are time consuming and expensive. We seek to utilize large scale prescribed burns in order to get the upper hand on the juniper problem. Burning is less expensive than either hand cutting or mechanical removal and can cover many more acres in a very short period of time. Burning has the added benefits of being more natural and more likely to remove juniper saplings as well as large trees.

The Partners and local NRCS staff are also working in cooperation with local producers and public utility provider Portland General Electric (PGE) to investigate whether juniper trees could be harvested and used as a replacement fuel for coal. PGE operates a nearby coal fired electricity generating plant which is slated to be shuttered in 2020 due to pollution concerns. However the plant has a useful life of over 40 years and represents a major investment for the company. For juniper to be processed through the plant it would have to be first chipped and torified into a type of charcoal. Laboratory testing is currently underway with potential full scale test burns planned for early 2015. If this market for juniper could be established it would provide local producers with a cost effective way of conducting juniper removal and restoration efforts on their lands.

As we are taking a whole watershed approach, the results of this FIP will be evaluated in multiple ways. The first will be in tracking and evaluating progress with our program sign up rates. The first hurdle will be to involve the landowners and usher them through the door. The sign up goals have been developed in coordination with the local local, state, and federal partners. Our first test will be to ensure that we meet the contract quotas we are shooting for. This will be simple to evaluate by comparing our goals to actual program enrollments.

Additionally, projects will include requirements and enhancements for edge of field monitoring and rangeland inventories. The edge of field monitoring will give details of sediment and chemical inputs leaving the field. Our goal is to show a reduction in such inputs leaving the fields and therefore entering surface waters. Rangeland inventories will help livestock producers monitor the amount of forage throughout their grazing rotations to ensure pastures are not being over-utilized by livestock.

The larger projects will require more defined assessments. The first evaluation will again be in measuring the number of project signups against the numbers projected. After that there will be individual benchmarks for each type of practice implemented. Photo point monitoring will accompany all projects to illustrate “before” conditions and “after” conditions.

It will be hard to gauge the positive impacts of our juniper removal efforts and forest health improvements. However, we have strong data for modeling the effects of juniper removal. We can measure the amount of juniper removed by the acre and correspond that acreage to scientifically

developed rates of rainfall interception and ground water usage. This will allow us to model the expected increase in ground water recharge from the juniper removal.

In addition we will conduct range health monitoring to develop a baseline for the amounts and types of forage within certain areas before and after juniper removal efforts. This will be completed using standard "hoop" tests. The same methods will be used to measure the improvements to forest land health in the appropriate circumstances.

Results will also be monitored via measurements taken at designated spring sites nearby the planned tree removal areas. Baseline data will be collected prior to treatment and flow changes will then be recorded at regular intervals to determine the increase in flow generated by the juniper removal. By collecting data directly from the spring sites we will be able to monitor the change in ground water recharge and estimate stream flow changes without influence from weather events. Direct stream flow measurements are also being considered but the variability in stream flows can often be the result of precipitation influencing short term stream flow changes. We will however log flow start and stop dates in the seasonal streams of the focus area. The hope being that we will see a reduction in the amount of time each year that the streams are dry, a reversal of current trends.

Our success in moving producers to include conservation tillage practice to their management will be gauged by the percentage of producers employing such techniques. Current estimates are that 50-60% of crop producers in the area are utilizing some form of conservation tillage. Our goal through this program is to move that number to 80%.

Our noxious weed control efforts will be assessed by the number of acres treated for noxious plants each year and throughout the life of the program. The benefits of noxious weed removal are evident in the health of the native plant communities and crop stands. Healthier grazing lands and clean crop stands equate to better production and higher yields.

Field terracing and WaSCB construction will be evaluated in two distinct ways. The first will be a measure of practice installation. Our goal is to install or reconstruct 17 miles of field terraces over the life of the RCPP program. In addition we hope to leverage the RCPP funding into state grants and tribal funding to construct up to 400 WaSCBs within the focus area. So our first measure of success will be in meeting those numbers. Our second method of assessment will be to use RUSLE2 modeling to estimate the before and after effects of our terrace and WaSCB installations. RUSLE2 will provide estimated soil loss for unprotected slopes and a comparable estimate for the protected slopes after construction.

The riparian and anadromous fish habitat protection projects will require several types of monitoring for assessment. The riparian areas will be able to be visually assessed once upland water systems and riparian fencing projects are completed. Photo points documenting the existing conditions will be taken and follow up photographs will show changes in riparian plant community health and numbers. A healthy and functioning riparian area will be considered a sign of improved stream health and habitat. Annual photo points will show trends in riparian health but in this arid region it will take much more than five years to see full recovery.

As in our other program divisions, the number of springs developed and the miles of fencing installed will be a measurable guide to the success of our efforts. It is an established fact that such installations have positive effects on watershed health.

When we look at the impact of our efforts on anadromous fish species it will be difficult to measure the full impact in just 5 years. The general lifecycle of a Steelhead will last 5-8 years between birth and spawning. A Steelhead smolt may stay in its native stream for 5 years before migrating to the ocean. And it may stay in the ocean for multiple years before it migrates back to spawn. Therefore the positive effects of

the projects and programs implemented through RCPP may not be seen until after the program has expired. Therefore much of our success will be gauged in the amount of habitat which is restored and the completion of projects which we know will have positive benefits to fish and aquatic species.

One tool that we do have for gauging the health of native Steelhead runs is a Passive Integrated Transponder (PIT) station which has just been installed near the mouth of Rock Creek in Gilliam County by the Oregon Department of Fish and Wildlife (ODF&W). For the last several years ODF&W has been capturing juvenile steelhead as they gather in lower Rock Creek and inserting PIT tags under their skin before releasing them to continue on their migration to the ocean. They have installed a radio frequency detection station into the stream to read the tags of fish that return. This will help give the ODF&W a better understanding of the unique lifecycles of the Steelhead in our focus area as well as help estimate any changes in the size of spawning runs in the future. The Gilliam SWCD is a partner with ODF&W on this project and has access to the data being collected. This data may show any fluctuations in Steelhead numbers as a result in our restoration activities.

Each of the associated partner sourced projects completed as contributions to the RCPP effort will include specific monitoring guidelines as agreed upon with the funders of those projects. This information will be included in the RCPP final reporting.

Monitoring for all projects, excluding producer monitoring outlined in program contracts, will be conducted by the local Partners involved in this RCPP proposal.

The alternatives and approaches incorporated into this FIP proposal for evaluating project outcomes represent the best approach given the types of work being performed, the goals of the FIP program, and the capacity of the involved partners. The proposed alternatives are appropriate and cost effective.

The natural resource concerns identified in this proposal were identified over time through various means. Especially helpful were the ODFW “Mid-Columbia River Conservation and Recovery Plan”, The NOAA Fisheries Service “Recovery Plan for Mid-Columbia Steelhead”, The BLM “John Day River Management Plan”, and the Oregon Water Resources Department “John Day Basin Report”. Multiple watershed assessments conducted by local SWCDs and Watershed Councils also identified concerns. These include assessments of Thirtymile Creek, Rock Creek, Lonerock Creek, Hay Creek, Scott and Ferry Canyons, Pine Hollow, Jackknife, Grass Valley Canyon, and Butte Creek.

We also consulted with local NRCS District Conservationists in Gilliam, Wheeler, Morrow, Wasco and Sherman Counties. NRCS county Long Range Plans, CIS Project Areas, and Local Work Group meetings also provided information on natural resource concerns within the proposed project area. Additionally the Gilliam SWCD sought input from landowners and land managers via District meetings, partnership meetings, landowner conversations, and industry group meetings. As such, we feel strongly that the goals of the RCPP projects will meet the natural resource needs of the focus area and reflect local considerations for conservation implementation.

We estimate that there are 653 producers located in our focus area and we plan to enlist 25% of them in this FIP through enrollment in NRCS programs and projects created by Partners. The Partners in the FIP will provide public outreach to eligible landowners and land managers via mass mailings, public notices, phone calls, newsletter articles, producer meetings and workshops, published notices, and attending local

producer advocacy group meetings. These outreach efforts will be led and funded by the partners in each area. Following an initial large push, specific producers in high value portions of the focus area will be targeted in an effort to reach those landowners and land managers we most want to see become involved in natural resource restoration activities and programs. Outreach and education efforts will continue throughout the life of the RCPP program with extra efforts being made each year to ensure program goals are being met.

Partner led outreach efforts are expected to generate a high amount of producer participation and program buy-in. The Soil and Water Conservation Districts and Watershed Councils have a lengthy history of working cooperatively with local landowners and manager to complete voluntary natural resource restoration activities. In fact the purpose of these local agencies is to work with and for the producers in their respective areas. Thanks to their strong history of serving local producers the Districts and Councils often have access to lands that federal agencies do not.

Since a main goal of our FIP proposal is to reach those landowners who have not participated in NRCS programs or conservation efforts in the past we expect to have to work a little harder to recruit them. Education and financial assistance will bring a lot of producers to the table who have not come forward in the past. We also hope to recruit respected local producers who have strong histories of participation to speak with their neighbors about the benefits that have been received. Those benefits include natural, financial and social improvements. Although it will require more effort to reach these individuals, the payoff will be immense in the end as we change an entire culture of agricultural production for the better.

We expect to see groups of producers included in large scale grants created by the partners as part of the local contribution to the RCPP. By leveraging the Federal RCPP funding the local partners can create large scale grant funded projects which will benefit multiple landowners and land managers cooperatively.

The partners will assist producers in applying for NRCS programs in several ways. The first will be to lead outreach efforts which are aimed at ensuring producers are aware of the programs and the benefits of program participation. Partners will further work with producers to identify natural resource concerns on their properties, developing management plans, identifying practices to implement, and filling out paperwork as necessary. In some instances partners will arrange meetings between producers and NRCS staff and act on the producers behalf if requested to do so by the producer.

In Oregon, as in other parts of the Country, there is increasing pressure on state regulatory agencies to address non-point sources of pollution. The vast majority of those non-point sources are related to agricultural activities. The goals of the SWCDs and Watershed Councils involved in this RCPP application include working voluntarily with landowners to complete natural resource restoration and protection efforts. From the beginning we have sought to create positive outcomes without involvement of regulatory agencies. The project components proposed in this application would help producers in the area to meet regulatory requirements in several ways. First, under 303d listings Total Maximum Daily Loads (TMDLs) have been established for most of the streams in the area. These include TMDLs for sediment, nutrient levels, certain herbicide and pesticide residues, and temperature. Nearly all of the streams in the focus area are out of compliance with the TMDL standard for temperature. The Endangered Species Act protections, which were instituted for Steelhead in 1999, list most of the creeks and rivers within the project area as vital spawning and rearing habitat. Each of the proposed project activities are designed to curb one or more of the TMDL inputs from reaching surface water and streams.

LOWER JOHN DAY RIVER WHOLE WATERSHEDS RESTORATION INITIATIVE

It is hard to imagine a more iconic fish in Central and Eastern Oregon than the Steelhead. Native Indian Tribes have relied on it for subsistence since the beginning of time, earning the Steelhead a reverent and spiritual place in native cultures. Today, Steelhead fishing remains an annual means of providing food for many local families and represents a vibrant sporting opportunity which brings valuable recreation dollars to local communities. The loss of the Steelhead spawning runs would lead to a cultural and social collapse for local communities. If we fail to address the effects of climate change and the increased desertification of the lower John Day River basin we will continue to see loss of stream flows, warmer stream temperatures, loss of fish and riparian habitat, and eventually the collapse of the anadromous fish populations in the region.