

**Washington State Trails Data Strategic Plan**

*for*  
**Washington Recreation and Conservation Office**

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McQueen Enterprise Analytics, LLC

Scot McQueen  
405 76<sup>th</sup> Way NE  
Olympia, WA 98506

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## INTRODUCTION

### Overview

The Washington Recreation and Conservation Office (RCO) is responsible for managing grant programs to create outdoor recreation opportunities within the state of Washington. Many of these outdoor recreation opportunities rely on access to trails and the facilities (bridges, restrooms, etc.) associated with them. Since the agency began in 1964, RCO has allocated almost a half a billion dollars to the creation, maintenance, and education associated with the over 12,000 miles of trails that exist in Washington State. RCO has not done this work alone and relies heavily on the other state land management agencies of the Department of Natural Resources (DNR), State Parks, and the Department of Fish and Wildlife (DFW) to collaborate with them in the State's trails mission. RCO also collaborates with the United States Forest Service, the National Park Service, cities, counties, and other nonprofit groups to further the development of Washington's trails. But where are these trails? How heavily are they used? What impacts do they have on local economies? How can we do a better job of planning new trails, maintaining degraded trails, and refocusing the public on little known trails while some trails are heavily used? How do we best spend our limited grant funds allocated to trails? To answer those questions more reliable trail data is needed. Most agencies associated with trails have gathered trail information in a variety of formats according to their own processes and needs. There have been few attempts at compiling information at a statewide level in a way that benefits the active trail users, the public, and the agencies responsible for answering the above questions. Simply put, reliable and pertinent information that can be used to better answer these important questions is hard to come by.

RCO is mandated under the Revised Code of Washington (RCW) 79A.25.005 to help other public agencies "preserve, conserve, and enhance recreational resources". In particular, the "mission of the recreation and conservation funding board and its office is to (a) create and work actively for the implementation of a unified statewide strategy for meeting the recreational needs of Washington's citizens, (b) represent and promote the interests of the state on recreational issues in concert with other state and local agencies and the governor, (c) encourage and provide interagency and regional coordination, and interaction between public and private organizations, (d) administer recreational grant-in-aid programs and provide technical assistance, and (e) serve as a repository for information, studies, research, and other data relating to recreation" (emphasis added).

Furthermore, RCO's powers and responsibilities, as laid out in RCW 79A.25.020, are to "prepare and update a strategic plan for the acquisition, renovation, and development of recreational resources and the preservation and conservation of open space. ... The plan shall include, but is not limited to: (a) an inventory of current resources; (b) a forecast of recreational resource demand; (c) identification and analysis of actual and potential funding sources; (d) a process for broad scale information gathering; (e) an assessment of the capabilities and constraints, both internal and external to state government, that affect the ability of the state to achieve the goals of the plan; (f) an analysis of strategic options and decisions available to the state..."

Obviously, these are tall orders if the datasets required to create the plan and analyze the options are not readily available. So, this same RCW mandates that RCO shall "create and maintain a

repository for data, studies, research, and other information relating to recreation and conservation resources in the state, and to encourage the interchange of such information.”

The RCW 79A.25.170 further challenges RCO with the creation of a “(p)ublic parks and recreation sites guide.” The RCO director is “authorized to coordinate the preparation of a comprehensive guide of public parks and recreation sites in the state of Washington. Such guide may include one or more maps showing the locations of such public parks and recreation areas, and may also include information as to the facilities and recreation opportunities available. All state agencies providing public recreational facilities shall participate.”

The purpose of the above discussion of the RCW is to provide context for this current effort to develop a plan for the compilation of these recreation datasets.

### **Current Status**

RCO recently provided funding to Washington State’s Office of the Chief Information Officer (OCIO) to aggregate existing trail data and to create a statewide GIS trail dataset. The OCIO acquired data from a variety of sources (state, federal, and other public agencies) and, through the labor of university interns, compiled it into one dataset making it freely available on the OCIO website for download. This effort focused entirely on the data and its compilation as the deliverable. It was an important accomplishment that allowed RCO and OCIO to understand the magnitude and limitations of existing trail information. While this was an important step forward, the data compiled is an incomplete snapshot in time with enough inconsistencies to leave its applicability questionable. The data also has no clear plan for quality improvements, maintenance, or feedback loops to and from the original sources. In fact, through the workshops undertaken in this planning effort and discussed in this document, it was discovered that none of the source agencies had downloaded or used the aggregated data in any way. This fact highlighted the importance of creating a plan and a community around the trail data to help maintain it and build its value for all concerned.

RCO understood that to meet its own mandates and the needs of its partnering agencies, a plan would need to be developed that involved all those associated with the trail data. The plan should include:

- Measurable goals or benchmarks
- Potential funding options
- Potential outreach activities to involve the public, NGO’s, and other governmental entities
- Marketing and outreach activities to increase engagement around documenting/mapping Washington’s trails
- An Implementation Approach that includes a timeline and technology/data maintenance procedures
- Potential methods for integrating the trails database into current RCO grant programs and grant funded projects.

The following document represents the findings and recommendations that will provide the foundation for the required plan. The plan will be completed once the information contained in this document has been reviewed and vetted with the trail data partners.

## KEY FINDINGS

A study was undertaken to answer the above questions and to better understand how trail data is being gathered, used, and disseminated. This study involved hosting a series of workshops and phone interviews with a variety of stakeholders involved with trail data. The purpose was to create a solid understanding of current data maintenance processes, how the data was being used, resource gaps, and potential areas of collaboration. The findings from the workshops and interviews have been summarized below. (Detailed notes from these interactions can be found in the appendixes.)

### RCO Internal Workshop Findings

A workshop was held with only RCO staff who are responsible for recreation planning, trail funding, and trail project compliance to understand trail informational needs that exist internal to RCO. The focus of the workshop was to better understand how they were currently meeting the needs, the applicability of the existing trail dataset, and gather ideas for what could be done to bridge the potential gap.

- 1) **Completeness** – The data gathered to date is a good start but everyone acknowledged it is incomplete and is only a partial representation of all the trails in Washington State. RCO staff also pointed out that the need for good, complete information *did not stop with trails but extended to other recreational facilities (bridges, restrooms, boat launches, sports fields, trailheads, etc.) information*. The current aggregated trail data was not being used within RCO to contribute to the state recreation or trails plans.
- 2) **Relevance** – Even if the dataset was geographically complete, it still would not answer the core questions of where funding should be allocated for trail development and maintenance, if the work currently being funded has been completed, and what the outcomes and benefits are. Both the NOVA and RTP advisory committees have requested that RCO provide maps that illustrate where project work is occurring. This is not possible using the existing data as there is no connection to the PRISM database. Because of this, the value to RCO, the recreation community at large, and those agencies responsible for trails is negligible.
- 3) **Connection to PRISM** – There is only a tentative connection to trail project work information within the PRISM dataset. Maintenance work, new trail sections, bridges, etc. are not connected to the trails database. *The connection to the PRISM database is critical to help track grant compliance, undertake funding analysis, and to better forecast need.*
- 4) **Understanding Use** – Trail use is poorly understood which creates a hurdle when choosing which projects to fund, developing recreation plans, or adjusting policy. Usage information could also contribute to understanding the impacts of recreation on local economies. More information is needed to do a better job.

- 5) **Planning** – One of the core needs that underlie the above deficiencies is the inability to proactively plan where recreation grant dollars should be spent on the State’s trail system. There is an inability to see gaps in a statewide trail system so partners can see how to connect trails to one another and the RCFB can prioritize projects that meet statewide needs.

### State Agency Data Partner Workshop Findings

A workshop was undertaken that included the State’s land management agencies and those staff directly responsible for trail creation, maintenance, and planning. The Department of Natural Resources, State Parks, and the Department of Fish and Wildlife participated. The focus of the workshop was to better understand how these agencies were gathering, maintaining, and using trail data and to understand how to better partner with them around recreational data.

- 1) **Standards and Best Practices** – Each agency expressed a desire for a more standardized way to gather and maintain their trail information which still recognizes and supports the unique business requirements of each agency. The variety of approaches and processes for gathering data creates problems when the data compilation begins. A significant amount of time is spent just trying to compile the data.
- 2) **Completeness** – The data gathered to date is a good start but, as with RCO staff, everyone acknowledged it is incomplete and is only a partial representation of existing trails within Washington State. In general, all agreed the existing aggregated dataset was of little use to their agencies.
- 3) **Understanding Use** – Trail use is poorly understood with little agency data available which creates a hurdle when submitting budget requests, developing recreation plans, applying for grants, or adjusting policy. More information is needed to do a better job. Access to trail use data presents a very high value to the land management agencies.
- 4) **Insufficient Resources Available** – Each agency expressed a need for resources to collect, process, and maintain trail data. Examples included gathering data on existing trails, compiling existing GPS data that is backlogged, correcting out of date or incorrect information, and updating existing trail data with improved information on facilities, bridges, and other infrastructure.
- 5) **Common Platform for Trail Information** – All agencies looked to RCO to work with the agencies in developing relevant best practices and standards recommendations to aid in their ability to provide accurate trail information. To facilitate the implementation of those standards, a common tool to provide usage statistics and data aggregation was discussed. This platform would allow partnering agencies to log in, upload or edit their data, and download the dataset in a way that connected to their own data models for use. Providing usage statistics coupled with the data aggregation platform created a win-win scenario to help ensure a better dataset. Access to even limited trail usage statistics provided an incentive for participation in the common platform.

## Non-State Trail Data Partner Interview Findings

Phone interviews and individual meetings were also undertaken with other potential trail data and use stakeholders external to Washington State government. These interviews included the other groups and partners also sharing responsibility for trail creation, maintenance, and planning. The United States Forest Service, Spokane County Parks Department, and the Washington Trail Association participated. The focus of the workshop was to better understand how these partners were gathering, maintaining, and using trail data and to understand how to better partner with them around recreational data.

- 1) **Active Engagement** – All interviewees expressed the desire to have a more active engagement from RCO when it came to sharing trail data and creating a community around it. Some of the ideas shared included creating a forum or trail data partner group that interacted regularly to discuss any challenges that they might be facing. The interviewees saw this “collaborative outreach” as critical in any efforts to gather a statewide dataset.
- 2) **Standards, Best Practices, and/or General Technology Support** – The variety of approaches, technologies, and processes for gathering data creates problems when any sort of data compilation begins. A basic recommended workflow and data model would help immensely. This was less of a need for the USFS as a data model and standard already exists. However, a workflow that helped each organization understand *how* to update the data for RCO would be useful and welcomed. *This included technology recommendations and guidance for organizations and partners without IT capabilities.*
- 3) **Existing data of low value** – None of the phone interviewees had downloaded or interacted with the existing trail dataset. As with other trail data partners interviewed, all agreed the existing aggregated dataset was of little use to their organizations without the community behind it engaged.
- 4) **Understanding Use** – As with the state land management agencies above, all interviewed reiterated trail use is poorly understood which creates a hurdle when submitting budget requests, developing recreation plans, applying for grants, or adjusting policy. Access to trail use data also presented a high value to the interviewees.
- 5) **Common Platform for Trail Information** – As with the state agencies above, all interviewees looked to RCO to create and lead a trail data “community of interest” in developing relevant best practices and standards recommendations to aid in their ability to provide accurate and consistent trail information. To facilitate the implementation of those standards, a common tool to provide usage statistics and data aggregation was discussed. Providing the usage statistics coupled with the data aggregation created a win-win scenario to help ensure a better dataset. Those interviewed also agreed that access to even limited trail usage statistics provided an incentive for participation in the common platform.

## Findings Summary

The main overlapping needs from the above workshops are summarized below into more succinct points. These summarized needs were common to all the participants so are of the highest value to address. Unique findings not common to all are followed by the responsible organization(s) in parentheses.

### 1. Existing trails dataset incomplete and of low value

- Not linked to PRISM (RCO)
- Data model does not provide ability for Agencies or others to add their information
- Only partial representation of trails in Washington
- Attributes missing (trail type, surface, maintenance, ADA, width, etc.)
- *ALL recreational facility information needs to be included (RCO)*

### 2. Standards, Best Practices, and/or Tech Support

- A more standardized way to gather/maintain trail information which is open to unique business requirements (RCO, Agencies, County, WTA)
- A basic Data workflow and open data model that allowed participants to connect to their own extraneous data would help immensely (Agencies, County, WTA)
- Technology recommendations and guidance for organizations/partners without IT capabilities (WTA, County)
- General GIS Support is needed to help compile existing data (Agencies, WTA, County)

### 3. Insufficient Resources available for trail data

- Funding options to develop or maintain trail information unavailable or poorly understood (Agencies, County, WTA, USFS)
- Resources needed to collect, process, and maintain trail data (Agencies)
- Help with backlogged trail data that had been gathered but not GIS processed (Agencies, WTA, County)

### 4. Tools for Understanding Trail Usage

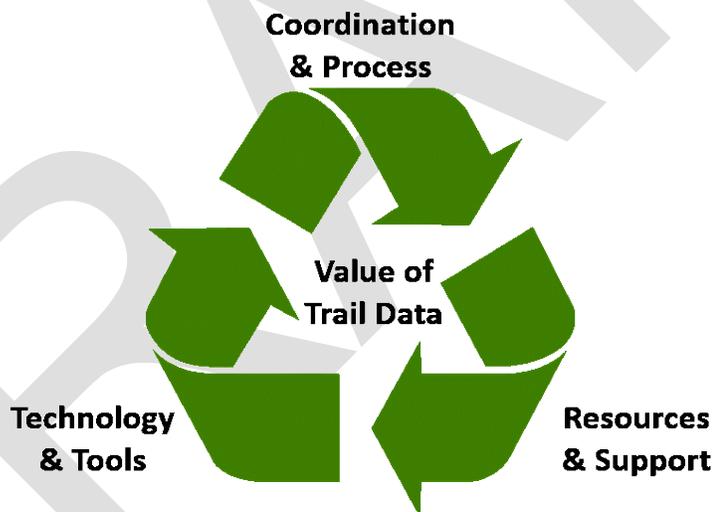
- Trail use is poorly understood making it difficult for planning, maintenance, adjusting policy, patrolling, funding, designing, etc. (ALL PARTICIPANTS)
- Need help understanding compliance issues, “social trails”, etc.
- Need help demonstrating trail use to lawmakers, local governments
- Need help demonstrating impact on local economies
- Access to even limited trail usage information would provide sufficient incentive for participants to further participate

### 1. Common Platform for Trail Information

- Need a trail data “community of interest” to develop understanding to aid in the ability to provide accurate trail information (ALL PARTICIPANTS)
- Common “tool” to provide usage statistics, data editing, and data aggregation (ALL PARTICIPANTS)
- Providing usage statistics coupled with data aggregation created win-win scenario. Access to even limited trail usage information provided sufficient incentive to participate further in the trail data community.

## RECOMMENDATIONS

The below recommendations were developed to address the workshop findings from above. In general, the recommendations attempt to approach the need for better trail information with a balance of coordination, technology, and resources. (See Figure 1) The recommendations will address these three areas to provide an integrated approach to developing trail data that has value for all participants.



(Figure 1)

### Coordination and Process

The ongoing maintenance and relevance of any aggregated dataset requires close coordination with all the data stewards responsible for the creation and upkeep of their respective data. Partner engagement is one of the critical aspects needed to ensure high quality data into the future. Effective engagement with the data partners will require a focused plan and outreach activities to develop a functioning collaborative environment. The work processes for data design, maintenance, and sharing will need to be developed together to ensure all stakeholders are on board. Memorandums of Understandings (MOUs) between RCO and the data partners will then be developed that document the agreed upon activities, processes, and products as defined through the coordination activities. *Given the level of work required to coordinate these activities, it is recommended that RCO consider*

*assigning, contracting, or hiring a Recreation Data Coordinator.* The below components represent the cornerstones required for a productive data partnership.

#### ***Recreational Data Advisory Group***

One of the key findings from the workshops was that the current dataset was aggregated into a data model that makes it difficult for any of the partnering agencies to extract it and connect their own data to it. The partners were not included in the data model design, development of maintenance protocols, or sharing requirements. A Recreational Data Advisory Group should be created that gathers input from the key data partners to ensure the relevance of the data aggregated. Membership should be extended beyond just the state land management agencies of Department of Natural Resources, Department of Fish and Wildlife, and State Parks to groups that have a stake in recreation data. These groups could include select cities and counties and data user groups. RCO would be responsible for coordinating the Advisory Group meetings, agendas, and documenting the outcomes. The mission of the Advisory Group would be to provide oversight and steering for the data aggregation activities. These would include agreements on roles and responsibilities for how the data should be maintained.

#### ***Common Platform User Group***

Part of the recommended activities in this document would be the development of a technology platform that would allow all participants to log in to, upload their information, download data, and have access to trail usage analytics. This sort of platform requires a delicate balance between making sure the aggregated data is secure and accurate without creating too much of a burden on those who would use the system. A user group consisting of those who would be required to use the system should be engaged to develop the requirements for the system so that their input is gathered and considered. Again, RCO would be responsible for coordinating the group meetings, agendas, and documenting the requirements gathered through the workshops. The mission of the Common Platform User Group would be to develop the requirements for the technology platform. This group would be more technical in nature and include the actual data stewards from the participating agencies. Once the platform was implemented, the need for the user group would diminish.

#### ***Trail User Group Outreach***

Currently, RCO is tasked with outreach to a variety of trail user groups to ensure they are true to their mission of funding appropriate recreational opportunities. It is recommended that the current outreach activities be extended to getting input for how recreational data could be made more useful to those using the trails or recreational facilities. Trail user groups could also provide valuable data on trail conditions and project compliance for RCO. The Washington Trails Association actively maintains trails across Washington state and has their own trailhead website, trip reports, and mobile application. They are interested in collaborating deeper with RCO and are currently working with a GIS consultant to deepen their mapping expertise. Also, the Washington State Trails Coalition biannual conference could be leveraged to include specific sessions hosted by RCO to gather this input and create further support for data development and sharing activities.

#### ***Trail Usage Information Partners***

There are a variety of 3<sup>rd</sup> partner vendors that gather and provide trail usage information. This data is typically gathered using mobile applications or GPS devices that track the movements of the

individuals, motorized vehicles, or horses. These organizations include Strava, MapMyFitness, Garmin, Fitbit, Bivy, REI, etc. Some vendors such as Trailhead Labs, include trail usage statistics from Strava in their proprietary trail data aggregation platform. Trail usage information is one of the critical success criteria in providing value back to the trail data partners. Initial contact with Strava and Trailhead Labs occurred to gather information for this paper but more work is needed here. *Note: The current State Trails Plan specifically placed a priority on finding a way to standardize and collect trail use data.*

### **Technology Ecosystem and Tools**

A complete technology ecosystem with appropriate data tools will be required to make sure that the recreation data is aggregated and maintained regularly. The current trail dataset is isolated as a geographic database without the data owners being able to add, delete, or modify the information. There are also limited ways to create products from the dataset without extracting the data into a separate GIS software platform that requires specialized skills. Technology ecosystems represent complete platforms with defined core components complemented by applications developed by 3<sup>rd</sup> parties. Technology ecosystems are typically built, bought or hybrid in nature. The ability for data stewards to have access to data maintenance tools, trail usage statistics, multiple outputs from the system, and the ability for 3<sup>rd</sup> party application developers to connect and use the data are all critical success factors for the technology ecosystem.

#### **Common Data Platform**

Currently the aggregated trail dataset exists on State Office of the CIO data servers and is available for download or to be viewed through a web map service. As stated elsewhere, having the data available in one place is an important first step but created a dataset that is incomplete and essentially a snapshot in time. A common data platform should be provided that allows data partners to upload, edit, and maintain their respective pieces of the aggregated data. Essentially, the platform would provide a content management system (CMS) that would allow users with a secure login to manage, create, and publish trail data. Users would have the ability to upload their own data or create, edit, and maintain the data through the system tools. These tools would ensure that the trail data is maintained and kept up to date through a common workflow. Users would also be able to download geographically limited areas and connect their own relevant data through a common data model. Ideally, the platform would provide publishing tools that would allow the creation of custom mapping files or online maps. A data model that included all recreation data and allowed the data partners to connect their agency specific data to it would need to be cooperatively developed. The focus of these recommendations is on trail data but RCO has a mandate through the RCW to aggregate a variety of recreation and land data. This common data platform should be extended to include the other recreation datasets. RCO's PRISM database should be connected to this platform to allow access to the important trail project information that PRISM contains. Users could also use the common platform to update trail project data in PRISM. This is a critical link that would provide high value to RCO's planning and funding activities.

#### **Trail Usage Analytics**

Understanding trail usage is one of the main priorities in the existing State Trails Plan. Further, trail usage statistics represented one of the biggest information gaps amongst those interviewed through to create this document. This information has high value for understanding how trails are being

used, maintenance requirements, volume trending, planning, and funding requests. Traditionally, trail usage is gathered through a variety of labor intensive and expensive techniques such as installing on-trail mechanical counters, trail surveys, etc. Newer technology has created usage data that could be leveraged more efficiently than older usage data gathering methods. One of the examples used to illustrate trail usage information during this study was from the mobile fitness application Strava. The application maps the movements of its users and couples it with dates, times, and other demographic data. While the users of the app are primarily runners, bike riders, and hikers, usage can be statistically extrapolated to illustrate overall trail use. Heat maps can be generated to show used paths vs what has been mapped. (<http://labs.strava.com/heatmap/#15/-122.89556/47.07214/orange/run>) Other sources of this “crowd sourced” data exist that could be leveraged for more accurate information for other trail use. Tools that allowed the data partners to have access to this information should be included in the technology platform.

### ***Multiple Outputs***

The system must have the ability to create multiple outputs. Outputs include pdf maps, raw data file formats (shp, kml, etc.), map services for consumption in mapping websites, and a direct connection to the data through an open API for developers or other sophisticated data consumers who want to connect directly to the data. Direct data outputs should have the ability to field map the data tables to match the partnering agencies’ data models.

### ***3<sup>rd</sup> Party App Developer Engagement***

To ensure the aggregated trail data remains relevant, it is important that 3<sup>rd</sup> party app developers are linking to the data and have an avenue for feedback. The technology ecosystem would provide open APIs (application program interface) for 3<sup>rd</sup> party application development. This would allow other organizations to connect and publish the data in their own applications.

## **Resources and Support**

Most of the organizations interviewed through this project had limited abilities to keep their trail data up to date. These limits consisted of a lack of funding, technical expertise, or general knowledge on how trail data should be gathered and maintained.

### ***Funding Mechanisms***

Providing funding mechanisms that data partners could leverage to assist the maintenance and development of trail data would encourage greater collaboration and ensure quality data is developed. RCO manages a variety of grant funding sources that could be leveraged to provide data update project funds. RCO could require that funded projects submit pertinent spatial and non-spatial data that would add value to the trails database. The Non-motorized and Offroad Vehicle Activities Program (NOVA) and the Recreational Trails Program (RTP) provide funding for trail development and upkeep. In the past, data partners have attempted to apply for grant funding to update their trail data but have been refused. The Recreation and Conservation Funding Board should be consulted to better understand how this could be done. RCO should also assess long term funding options from operational funds that would provide non-project based funding for ongoing maintenance as required by RCW 79A.25.020. More work is needed here to understand contract requirements, process for data collection, impacts to grant recipients, system requirements, etc.

### **Best Practices**

General guidance on the creation and maintenance was needed among the data partners. This guidance included recommendations on tools and processes best suited for these activities. A “best practices” guide should be developed that includes recommendations on data logging tools, appropriate data models, maintenance workflows, and data aggregation techniques. The best practices document would create a common approach to how trail information is gathered and developed helping ensure that data partners become more efficient at updating the aggregated data. Data partners could disseminate the best practices among their regional operations helping with their own internal processes

### **Technical Assistance**

The partnering agencies also had a variety of technical abilities when it came to how their trail data was compiled. Providing technical assistance to help with backlogged trail data and general GIS questions would ensure the trail data is brought up to date with fewer problems. The technical assistance would likely be intensive in the beginning but trail off over time as the common data platform, data editing tools and best practices become available.

## **SUMMARY**

There are over 12,000 miles of trails in Washington State making them one of the biggest recreational assets we have. Where are they? Who uses them? Which ones should we apply grant funding to? What are their impacts to our economy? How are we leveraging them as recreational opportunities? Answering these important questions requires that we have quality trail data that a community has come together to develop and maintain cooperatively. Involving those responsible for the trails themselves and providing the necessary tools that help them answer their own planning questions will ensure quality data and create a positive feedback loop. To accomplish building the data and community to sustain it, regular coordination, funding, and technology is needed. It will take a significant amount of up front work to coordinate the above recommendations. *RCO will need to assign, contract, or hire a Recreational Data Coordinator whose main responsibilities will involve implementing the tactical steps required to accomplish this work.*

Trail data, much like the actual trails themselves, requires knowledge, maintenance, and regular use to avoid falling into disuse. Without involving the people who develop, manage, and love our trails, we risk the mismanagement of one of our State’s most valuable recreation assets.

**APPENDIX A**  
**RCO Internal Workshop Notes**



# Memorandum

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**To:** RCO Trails Vision Workshop Group  
**From:** Scot McQueen  
**Date:** November 14, 2016  
**Subject:** RCO Internal Visioning Workshop Notes

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## Introduction

This memorandum documents the results of a Trails Database Visioning workshop. This workshop was internal to RCO to provide a solid understanding of current status, benefits, gaps, and potential areas of improvement to the existing trails database. This notes from this workshop will provide a foundation of knowledge to be utilized as we engage external stakeholders in the next phase of the Trails Database Planning process.

## Workshop Date and Attendees

The Workshop was held on November 8, 2016. The workshop was held at the NRB between 2:00 pm and 4:00 pm and was attended by those shown in the table below.

Organization/Role	Name(s)
McQueen Enterprise Analytics,	Scot McQueen
RCO - Grants	Marguerite Austin
RCO - Grants - Grant Manager Trails	Kyle Guzas
RCO - Grants - Grant Manager	Ben Donatelli
RCO - Policy Specialist	Leslie Connelly
RCO - CIO	Greg Tudor
RCO - Admin Assistant	Justine Sharp
RCO - Grants - Trail Program Manager	Darrell Jennings
RCO - Planner	Lurinda Anderson
RCO - GIS	Bob Euliss

## Workshop Areas of Discussion

The areas of discussion generally included the following:

- Outlining the goals for the Workshop;
- Identifying each participant's opinion regarding the largest challenge facing the trails database;
- Discussing what's going right with the trails database;
- Discussing what's not working well;
- Discussing RCO's programs and how trails fit in

Discussing potential applications of trails data and gaps

Outlining next steps

### ***What's Going Right***

Each participant was asked what they thought was going right with the existing Trails data. The responses included the following:

Finally have an aggregated trails database that includes state agencies, federal, local, etc trails information

Data is standardized and accessible in a solid GIS format

Starting place for a trails inventory

RCO's Governing Board is engaged and supportive in the trails efforts

Now have a clearer picture of what data exists, its accuracy, and what improvements should be made

### ***What's Missing – Areas of Improvement***

Each participant was asked where they thought things might be improved with the existing Trails data. The responses included the following:

Trails data, while more complete, is not really usable or dynamic

Other agency land managers aren't bought in to providing the data

Need to have a solid understanding of where trails data/information is missing

Pathways to sharing trails data are missing

Trails dataset is not linked to PRISM so have no way of tracking investments etc.

Information is snapshot in time with no update plans – keeping the data up to date

Actual benefit of data to RCO and land managing agencies (DFW, DNR, Parks) is pretty low right now

Right now just “lines on a map”

The discussion of what's missing began to naturally group into the following areas relative to RCO's mission. Each area had its own needs associated with the trails data.

### **Planning**

Recreation Plan due 2017 has a heavy trails component to it

Plan is using surveys to gather trail information but lacks geographic component. I.e. how far are people traveling to utilize trails, which trails they are utilizing, etc

Resident Survey will be sent out in January/February 2017

Unclear where RCO should put trail funding – currently reactionary in approach – just responding to grant applications rather than identifying areas that trails are needed

Need better understanding of types of trails that will meet the biggest needs & ability to show the gap

How do we accommodate the motorized community – missing communication

Are we funding the right things (Bulk of funds go to maintenance, state trails plan directs RCO to evaluate priority investments.)

A better understanding of trails, needs, gaps, and benefits is needed to create better plans

We need a better understanding of trail use, demographics, etc to plan effectively

## **Policy**

Are we asking the right questions when we evaluate funding for grants?

We're missing opportunities to gather info through planning requirements

What are the impacts on public health? How do we improve?

A better understanding of terrain to facilitate ADA compliance/policy

Policy requires us to house recreational data but we need a better business case to justify resources spent on this activity

We're tasked with funding more dirt trails but is this a correct strategy that meets the need?

What is this money supposed to provide? A better framework for accountability through trail funding outcomes and benefits is required.

Ultimately how do we measure the performance of our trail funding for the Recreation and Conservation Funding Board (RCFB)?

WHERE SHOULD WE PUT OUR FUNDING

## **Compliance**

Grant Managers are responsible for enforcing trail work compliance – too many other duties to follow up effectively

Difficult to tell when maintenance work has been done

Would be great to engage trail user populations to comment on trail conditions, inconsistent use, quality of work etc.

Difficult to track what sponsors are involved with what trail projects – better integration with PRISM is needed

Work that's been funded (PRISM) is missing from trails database – sections of trails worked on, bridges, etc

## **Summary**

The discussion was great with all participants contributing. Ultimately, there was a significant degree of frustration with the amount of data gathered to date and its benefit to RCO. The biggest gaps in the data discussed were:

- 1) Completeness – The data gathered to date is a good start but everyone acknowledged it is incomplete and is only a partial representation of all the trails in Washington State.
- 2) Relevance – Even if the dataset was geographically complete, it still would not answer the core questions of where we should fund trail development and maintenance, if the work we are funding is completed, and what the outcomes and benefits are. Because of this, the value to both the community at large and those agencies responsible for trails is low
- 3) Connection to PRISM – There is no connection to trail project work information within the PRISM dataset. Maintenance work, new trail sections, bridges, etc. are not connected to the trails database.
- 4) Understanding Use – Trail use is poorly understood which creates a hurdle when choosing which projects to fund, developing recreation plans, or adjusting policy. More information is needed to do a better job.

## **Next Steps**

The next steps, lead entities, and deadlines that were discussed during the Workshop included the following:

Provide notes to the attendees (Scot McQueen) – November 15, 2016

Group additions/correction of notes (Group) – approximately November 30, 2016

Land Manager Workshop (Scot McQueen, Scott Robinson) – Hopefully before December 15, 2016

Phone interviews with select non-state agency RCO sponsors – Before end of 2016

**APPENDIX B**  
**State Agency Data Partner Workshop Notes**



# Memorandum

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To: Trails Database Partners Group  
From: Scot McQueen  
Date: December 19, 2016  
Subject: RCO Trails Data Partners Workshop Notes

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## Introduction

This memorandum documents information exchanged during a Trails Database Partners workshop. This workshop included representatives from three Natural Resource State Agencies who are responsible for maintaining public trails and the associated data. The purpose of the workshop was to create a solid understanding between the agencies of the current data maintenance processes, resource gaps, and potential areas of collaboration to help improve the existing and future WA state trails database. The notes from this workshop will provide a foundation of knowledge to be utilized as we continue to develop the business plan for more effectively funding and developing the WA state trails database.

## Workshop Date and Attendees

The Workshop was held on December 14, 2016. The workshop was held at the Natural Resources Building between 9:00AM and 11:00AM and was attended by those shown in the table below.

Organization/Role	Name(s)
McQueen Enterprise Analytics,	Scot McQueen
RCO – Deputy Director	Scott Robinson
DNR – Acting Statewide Recreation Coordinator	Glenn Glover
DNR - GIS	Elizabeth Eberle
State Parks – Partnership and Planning Director	Steve Brand
State Parks – Trails Program Coordinator	Nikki Fields
DFW – Outdoor Recreation Planner	Melinda Posner

## Workshop Agenda

The areas of discussion generally included the following:

- Introductions (Group)
- Session Goals (Scott Robinson – RCO)
- Trails Database Business Plan (Scot M)
  - Project Overview

Agency Trail Data Programs – How are we currently gathering, maintaining, leveraging trail information

- Parks
- DFW
- DNR

Potential Benefits Brainstorm (Scot M)

- Tools, Analytics, Trends

Cooperative Potential Brainstorm (Group)

- Shared Resources
- Production Improvements
- Potential Funding Sources

Next steps

### ***Trails Business Planning Overview***

The information gathered in this workshop and others will be utilized to create a business plan for the State's trails database. The basic plan outline for the plan will include:

Measurable goals

Potential funding options

Potential outreach activities to increase engagement between agencies and trail users

Implementation approach that includes a timeline and data maintenance procedures

Potential methods for integrating the trails database into current RCO grant programs and grant funded projects

It is anticipated that a draft plan will be available sometime late January for stakeholder review and comment.

### ***Agency Trail Data Programs***

Each participating partner Agency shared their current approach to mapping and maintaining trail data. The questions included the following:

How are you gathering, maintaining, and leveraging trail data?

What's missing?

Where do you need help? (Standards, processes, funding, personnel, other resources)

Importance of trail data within your agency

Below are the responses by Agency:

## STATE PARKS

### Data gathering and maintenance?

- Trail information is generally gathered by volunteers using GPS devices
- Currently in the process of hiring a new Trails Coordinator
- Data is gathered without concise standards or processes which creates compilation problems in the office
- Information most needed is trail width, surface, and associated facilities
- Currently lacks a standard method/process for gathering new trail data
- Spatial data gathered from volunteer GPS is difficult to integrate
- Dynamic segmentation (GIS data type) is not available
- Trails data is one of the most commonly requested datasets

### What's missing and areas of improvement?

- Data collection best practices
- Trails data standards
- Have a big “pile” of trail data that needs to be added
- Cost of trail maintenance is unknown
- Understanding of unmapped social trails – where, impact, design needs
- Inadequate usage data
- Data to support budget/grant requests
  - Basic maintenance tracked
  - Road standards applied
  - Usage counts and statistics tracked
  - Who are we designing for?
- ADA trip planning capabilities
  - Power driven mobility devices
  - Trail width data needed
  - Compliance with new signage requirements
- Planning for non-highway transportation

### Where do you need help?

- GIS support (Parks currently has 1.5 FTE as a shared resource)
- Data collection best practices recommendations
- Trails data standards that meet our needs

- Usage statistics
- Understanding of funding options

## **DEPARTMENT OF NATURAL RESOURCES**

### Data gathering and maintenance?

- Each of the six DNR regions uses own data model and collection standards (no common approach)
- Trail data is pulled from regions and then aggregated
- Using different region based standards or processes with a variety of discipline creates compilation problems
- Not enough emphasis has been placed on trail data overall
- DNR trail usage is mostly focused on more primitive experiences which creates a different data need than other agencies
- Trails data is one of the most commonly requested datasets

### What's missing and areas of improvement?

- Data collection best practices recommendations
- Trails data standards
- Ages of bridges and other trail infrastructure
- Inadequate usage data
- Data to support budget/grant requests
  - Basic maintenance tracked
  - Road standards applied
  - Usage counts and statistics tracked
  - Who are we designing for?

### Where do you need help?

- Help creating a DNR data model that is widely acceptable
- Help processing/aggregating existing datasets to create more uniform trails information
- Trails data standards that meet our needs
- Data collection best practices recommendations
- Usage statistics tracked
- Resources for more data collection and maintenance (apps, volunteers, funding)
- Interpreting and maintaining existing data (Common data aggregation platform)
- Understanding of funding options – How can we obtain funding to help us maintain our trail information.

## **DEPARTMENT OF FISH AND WILDLIFE**

### Data gathering and maintenance?

- No clear procedures for mapping trails or gathering trail information
- Trails are not a central priority for DFW
- DFW is working on re-establishing what the recreation vision is for the agency
- Each region uses different methods for gathering trail data making compilation difficult
- Not enough emphasis has been placed on trail data overall
- Good counters on water access points, fishing, hunting blinds

### What's missing and areas of improvement?

- Data collection best practices recommendations
- Data stewardship plan to foster importance of trail data for DFW
- Trails data standards
- Inadequate usage data

### Where do you need help?

- Help creating a DFW data model that is acceptable across agency
- Help processing/aggregating existing datasets to create more uniform trails information
- Trails data standards that meet our needs
- Data collection best practices recommendations
- Usage statistics
- Resources for more data collection (apps, volunteers, funding)
- Interpreting and maintaining existing data (Common data aggregation platform)
- Understanding of funding options

### ***Potential Approaches and Benefits for Trail Data***

A discussion and brainstorm of how better trail data might be developed and leveraged followed. A brief technical demonstration which included some current technologies to stimulate the discussion was given. The discussion included the following:

Brainstorm potential approaches to improving what is done with trail data

Tools to improve accuracy

Available crowdsourcing data for usage analytics (Strava, Trailhead Labs, etc.)

Tools for engagement and public relations

Below is a synopsis of the discussion:

Usage statistics is an important aspect needed to better plan and understand trends

Leveraging crowdsourced data is useful to identify accuracy problems

There is value in being able to attach picture of trail usage to map

Agency still must be responsible for correcting the data versus just using the crowdsourced data

Managing data (collected and crowdsourced) would take resources agencies do not currently have readily available

Need user/user-group participation in aggregating, utilizing, and disseminating trail data

Would be great to have a common platform for aggregating data and understanding usage as a planning tool - *but only if it is simple and effective, not if it increases work and bureaucracy without replacing other work.*

Hard copy maps should match digital data (they don't now)

Mobile apps are important but should use a common dataset

*There may not be a single mobile app that is suitable for all agencies. For example Parks may need an app which allows managing campsites and reservations, not something that DNR will need.*

RCO should provide some sort of usage tool to better engage funding planning at the agency level - *the tool would need to be simple to use and provide high value information to be effective*

### **Summary**

The discussion was great with all participants contributing. The common needs across the agencies fell into these basic categories:

- 1) Standards and Best Practices - Each agency expressed a desire for a more standardized way to gather and maintain their trail information which still recognizes and supports the unique business requirements of each agency. The variety of approaches and processes for gathering data creates problems when the data compilation begins. A significant amount of time is spent just trying to compile the data.
- 2) Completeness - The data gathered to date is a good start but everyone acknowledged it is incomplete and is only a partial representation of all the trails in Washington State. In general, all agreed the existing aggregated dataset was of little use to their agencies.
- 3) Understanding Use - Trail use is poorly understood which creates a hurdle when submitting budget requests, developing recreation plans, applying for grants, or adjusting policy. More information is needed to do a better job.
- 4) Insufficient Resources Available - Each agency expressed a need for resources to collect, process, and maintain trail data. Examples included gathering data on existing trails, compiling existing GPS data that is backlogged, correcting out of date or incorrect information, and updating existing trail data with improved information on facilities, bridges, and other infrastructure.
- 5) Common Platform for Trail Information - All agencies looked to RCO to work with the agencies in developing relevant best practices and standards recommendations to aid in

their ability to provide accurate trail information. To facilitate the implementation of those standards, a common tool to provide usage statistics and data aggregation was discussed. Providing the usage statistics coupled with the data aggregation created a win-win scenario to help ensure a better dataset.

**Next Steps**

The next steps, lead entities, and deadlines that were discussed during the Workshop included the following:

Provide notes to the attendees (Scot McQueen) – December 23, 2016

Group additions/correction of notes (Group) – approximately January 6, 2017

**APPENDIX C**  
**Non-State Data Partner Interview Notes**



# Memorandum

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To: Trails Database Partners Group

From: Scot McQueen

Date: January 6, 2017

Subject: RCO Trails Data Partners Phone Interview Notes

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## Introduction

This memorandum documents information exchanged during a series of Trails Database Partners phone interviews. The interviews included representatives from the United States Forest Service, Spokane County, and the Washington Trails Association (WTA) who are responsible for engaging with trail users, maintaining public trails, and utilizing/maintaining the associated data. The purpose of the interviews were to obtain a better understanding from organizations outside of Washington State government of how trail data is being leveraged, current data maintenance processes, resource gaps, and potential areas of collaboration to help improve the existing WA state trails database. The notes from these interviews will provide information to be utilized as we continue to develop the business plan for more effectively funding and developing the WA state trails database.

## Interview Dates and Attendees

The Workshop was held on December 14, 2016. The workshop was held at the Natural Resources Building between 9:00AM and 11:00AM and was attended by those shown in the table below.

Organization/Role	Name(s)	Scheduled Date/Time	Status
McQueen Enterprise Analytics	Scot McQueen		
USFS – Assistant Program Manager Trails	Jeff Mast	1/6/2017 09:30 – 10:30 PST	Complete
Spokane County – Park Planner & Real Estate Coordinator	Paul Knowles	1/6/2017 11:00 – 12:30 PST	Complete
Spokane County – Asst. Director County Parks, Recreation, and Golf	John Bottelli	1/6/2017 11:00 – 12:30 PST	Complete
WTA – Digital Content Manager	Loren Drummond	1/24/2017 11:00 -12:00 PST	Complete
WTA – Communications Director	Kindra Ramos	1/24/2017 11:00 -12:00 PST	Complete
WTA – Hiking Guide Coordinator	Anna Roth	1/24/2017 11:00 -12:00 PST	Complete

## Interview Agenda

The areas of discussion generally included the following:

Trails Database Business Plan (Scot M)

- Project Overview

Agency Trail Data Programs – How are we currently gathering, maintaining, leveraging trail information

Trail Data Sharing Brainstorm

- Tools, Analytics, Technology trends
- How do we better engage the trail user community?

Cooperative Potential Brainstorm

- Shared Resources
- Thoughts on where RCO can work better with your organization

Next steps

### ***Trails Business Planning Overview***

The information gathered in these interviews and others will be utilized to create a business plan for the State's trails database. The basic plan outline for the plan will include:

Measurable goals

Potential funding options

Potential outreach activities to increase engagement between agencies and trail users

Implementation approach that includes a timeline and data maintenance procedures

Potential methods for integrating the trails database into current RCO grant programs and grant funded projects

It is anticipated that a draft plan will be available sometime late January for stakeholder review and comment.

### ***Trail Data Programs***

Each phone interviewee shared their current approach to mapping, maintaining, and leveraging trail information. The questions included the following:

How are you gathering, maintaining, and leveraging trail data?

What's missing?

Where do you need help? (Standards, processes, funding, personnel, other resources)

Importance of trail data within your organization

Below are the responses by Organization:

### **UNITED STATES FOREST SERVICE**

What is your role within the Forest Service?

- Assistant National Trails Manager

- Responsible for USFS trails policy

#### Data gathering and maintenance?

- Trail information is all gathered at the Forest Unit level and then aggregated into the core “INFRA” database
- Each Forest Unit must approve trail data before it is published into INFRA
- This process leads to incomplete datasets at the national level
- INFRA is the enterprise data warehouse used to create the visitor maps for each Forest Region
- INFRA is good but a national level dataset so there’s a fair amount of data maintenance (updates) needed
- INFRA is in the process of being “revamped” into a more current database platform
- Revamp will start with Heritage data not trails
- Each Forest Unit gathers trail data in its own way but there is a standard data model
- Trail usage tracked through trailhead surveys and extrapolated across the Forest Unit(s)

#### What’s missing and areas of improvement?

- More work is needed on understanding usage and associated analytics
- USFS needs to get better at letting partners (state/local) gather and submit trail data
- USFS trail system huge and hard to track trail conditions/usage/maintenance across the country/state(s)
- Currently working with Trailhead Labs on the Deschutes National Forest to better understand usage and clean up the data.
- Low capacity/funding to work on trails so better usage understanding would help create trail focus areas. USFS just passed the Forest Trails Stewardship Act which requires us to create 9-15 Trail Focus Areas by May. Trail Focus Areas will be utilized to catalogue trail miles maintained, improved, etc. and reported to congress. Also requires the identification of Pilot outfitter and guide vendors that rely on trails to help with maintenance etc.

#### Where do you need help?

- Primarily we need active engagement with our partners like RCO. That means, regular communication and engagement at the planning funding level.
- WTA has carried most of the torch for trail maintenance in Washington State but us understanding the state level recreation plans and policy would help us make better plans for our trails and trail data.

### **SPOKANE COUNTY**

#### What are your roles within Spokane County?

- Assistant Director of Recreation Program

- Trail Program Manager
  - Updating current regional trail plan 2014
  - IT/GIS Trail Inventory
  - Trail Signage

#### Data gathering and maintenance?

- Trail data last updated as part of the regional trail plan in 2014
- Used data donated by trail enthusiasts
- Checked into using Strava data but it was cost prohibitive for Spokane County
- Over 600 miles of trails exist within County
- Most important attribute of the trail data has been public vs private
- Also have trail type (single track, paved, etc.)
- Updates to trail data (maintenance/changes/etc) done by work crew utilizing GPS
- Tried ArcGIS Collector but it was too cumbersome
- We are beginning 2019 Regional Trail Plan update which will include going through the trail information too.
- Usage statistics currently gathered by magnetic car counters

#### What's missing and areas of improvement?

- Trail Conditions are really not tracked
- Elevation profiles are not part of trail data
- Difficulty level so users could better plan trips
- Some sort of flagging system (WTA trip reports) to notify of problems or maintenance needed
- Need better usage statistics for 2019 planning

#### Where do you need help?

- Better tools and technology
- Aggregation Platform for uploading data
- Standardized data model that is flexible
- Best practices/recommendations for trail mapping
- Better trail usage analytics so we can focus funding
- Can we fund trail technology through RCO Grants? Things like trail counters, application development, etc.
- Better understanding on funding options. Currently see a gap between urban paths vs back country funding.

- Being able to make trail information available in a lot of different ways (maps, data downloads, mobile apps, programming APIs, etc.) for a lot of different uses/applications (hard copy maps generation, app development, private consumption, reporting, etc.)

## **WASHINGTON TRAILS ASSOCIATION (WTA)**

### What are your roles within WTA?

- Loren Drummond – Digital Content Manager
  - All things having to do with the website
  - All things data, how users might consume data on website
  - Work with Trailblazer team (mobile app) – how can we get people where we need to go
  - Mobile app – development is done via a volunteer team with some contractor assistance
  - Website is based on Plone
- Kindra Ramos – Communications Director
  - Oversees all communication
  - Charlie Kale – Information Systems Manager
- Anna Roth – Hiking Guide Manager
  - Manage the hiking guide data (team of volunteer writers who write up guides)
  - This team is gathering some of the trail tracks via GPS or other apps
  - Tracks have been cleaned up but we don't have a solid approach to deploying yet (150 hikes)

### Data gathering, maintenance, and mobile app/website?

- Managing data assume the top 100 hikes are up to date – trip reports help confirm
- Hiking guide is continuously being updated
- Trusted contributors are gathering files that come in as gpx and have to be converted to .kml which is time consuming
- Cross referencing with land managers (DFW, DNR, USFS, NPS, Parks). Of these, Forest Service is most vocal and reaches out the most often.
- Hardest aspect is maintaining current information of what's open what's not
- Public information (crowd sourced) data is time intensive – originally started as a wiki, Mountaineers Books also populated a big chunk, then dedicated a person (Anna)
  - WTA has a trusted group of hiking guide correspondents
  - Biggest problem with crowdsourced data is GPS device – too much error from devices, or filing trip reports + tracks from a hike that "doesn't exist" (e.g. on private land or decommissioned trail)

- Have been approached by other 3<sup>rd</sup> party app to use

#### What's missing and areas of improvement?

- Looking to expand GIS capabilities (have hired a contractor to research)
- Different approaches to sharing data but need to stay on stewardship message
- Helping the public see the possibilities beyond the overused trails
- Don't have a great sense of actual numbers of how many are doing hikes
- Mount Baker Snoqualmie is looking at usage forecast
- Looked at OCIO trail data but turned off by lack of maintenance by state
- OCIO trail data incomplete
- Who is OCIO data is geared through (want to be able to sort out how trails are used hiking, horses, etc.)
  - If trail data was current/relevant it would be added to website
- Worry about how closely people are using trail line (i.e., gpx track) to navigate
- Looking for definitive source of info so represents the land managers
- Trailhead database – incorporated in main data
- Trails that do not have trailheads (e.g., Frosty – Wildhorse Trail on OKWNF – starts at junction with Icicle Ridge trail w/no trailhead of its own)

#### Where do you need help?

- Funding for trail maintenance that is focused via usage
- Somehow create a “value” that represents how important trails are in Washington
- Help with more advanced planning
- GIS support to help with data design
- Access to a comprehensive and current database
- Other recreational facilities, trail surface, parking lots, ADA,
- Statewide database that shows trail closures, alerts, etc. USFS fires as an example (KML File)
- Show us where people AREN'T going so we can advocate for those spots
- NW Avalanche Control – Scott Shell

#### ***Potential Approaches and Benefits for Trail Data Synopsis***

Each interview included a healthy discussion and brainstorm of how better trail data might be developed and leveraged. These responses are part of the notes above but an aggregated synopsis is below.

Better engagement from RCO would help the interviewed organizations do better at matching their trail data and mapping work

Usage statistics is a huge gap

Leveraging crowdsourced data is an important tool to develop trail data but it has not been leveraged at the Federal level

Would be great to have a common platform for aggregating data and understanding usage as a planning tool

RCO should provide some sort of trail usage tool or analytics to better engage funding planning at the trail partner level

### **Summary**

All participants in the phone interviews were highly engaged and eager to work better with RCO on the trail database. The main difference from the phone interviews versus the state agency workshop is that all interviewees wanted a more active engagement from RCO when it came to trail data and planning activities. The common needs listed below are similar to the workshop with DFW, Parks, and DNR:

- 1) Active Engagement – All interviewees expressed the desire to have a more active engagement from RCO when it came to sharing trail data and creating a community around it. Some of the ideas shared included creating a forum or trail data partner group that interacted regularly to discuss any challenges that they might be facing.
- 2) Standards, Best Practices, and/or General Technology Support – The variety of approaches, technologies, and processes for gathering data creates problems when any sort of data compilation begins. A basic recommended workflow and data model would help immensely. This was less of a need for the USFS as data model and standard already exists. However, a workflow that helped each organization understand *how* to update the data for RCO would be useful and welcomed. This included technology recommendations and guidance for organizations and partners without IT capabilities.
- 3) Existing data of little use – The data gathered to date is a good start but is only a partial representation of all the trails in Washington State. None of the phone interviewees had downloaded or interacted with the existing dataset. In general, all agreed the existing aggregated dataset was of little use to their organizations or the public in general.
- 4) Understanding Use – Trail use is poorly understood which creates a hurdle when submitting budget requests, developing recreation plans, applying for grants, or adjusting policy. More information is needed to do a better job.
- 5) Common Platform for Trail Information – All interviewees looked to RCO to create and lead a trail data “community of interest” in developing relevant best practices and standards recommendations to aid in their ability to provide accurate trail information. To facilitate the implementation of those standards, a common tool to provide usage statistics and data aggregation was discussed. Providing the usage statistics coupled with the data aggregation created a win-win scenario to help ensure a better dataset.