

RIVER ACCESS PLANNING GUIDE TOOLKIT

Handy planning resources that will help you
reimagine and enhance your river access project



The River Access Planning Guide (RAPG) Toolkit is a collection of organized tips and worksheets to assist river managers, and site designers plan and implement river access projects guided by the RAPG framework.

Each section is organized by Steps 1-6 providing:

- a condensed version of RAPG Tips (🌀) & Tasks (□)
- question-based activities and worksheets, and
- links to resources and relevant literature

Use the tips and tasks to complete the embedded worksheets which provide space for documenting answers, sketches, and notes to guide the visioning, planning and implementation steps in the RAPG.

- The Toolkit is available as a fillable PDF that can be used offline or in printed form. The Toolkit is designed to be used after familiarization with the ***River Access Planning Guide*** (2020).



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Step 1: Assess and Summarize Existing Conditions

Here are Tips suggested in the *Guide* to keep in mind as you progress through Step 1 Tasks. After their review, proceed to the Tasks which align with Worksheets #1 & 2.

Tips

- **Establish a planning leader to work with resource managers or subject matter experts to gather relevant and baseline information.**
Notes (e.g., ideas of people to lead this process):
- **Seek known information, resources and individuals who may have information on current recreation use. Think outside the box, reflect local demographics, and account for accessibility.**
Notes (e.g., users, clubs, friend groups, outfitters, etc.):
- **Consider whether the access project is for a single access site or a collection of access sites along a river corridor within your management zone. Consider how roads and trails which connect to the access site(s) might affect the user experience.**
Notes (e.g., which access sites, existing or undeveloped, are you considering for this project? List site names or coordinates if access is undeveloped):
- **Consider the extent to which new or enhanced access could alter the visitor experience, visitor use patterns, site management, or other attributes.**
Notes:
- **Scale project area based on size and complexity as determined by geographic extent and diversity of recreational and physical setting. Consider which local, state, and/or federal partners to engage in various aspects (planning, permitting, partnership) of the project.**
Notes:

Let's get started!

Step 1 Tasks

- ☐ **Define River Project Area**
(Complete Worksheet #1 – Reach Analysis Field Worksheet)
*Worksheet #1 should be completed first as a “30,000 foot” overview of a river system (i.e., all access sites and reaches). Regardless if planning for one access site or several, or even if not actively considering access enhancements, any organization or manager can complete Worksheet 1 and 2 to better understand their river system. Worksheet #1 questions encourage a comprehensive view of the river project area (see Figure 1).



Figure 1. Example of Clackamas River Project Area overview which includes several reaches and multiple existing and potential access sites (e.g., red dots). Worksheet #1 attempts to provide information for the entire system without site specific details.

- ☐ **Identify River Access Site(s) Areas**
(Begin Worksheet #2 – River Access Site Analysis)
*Worksheet #2 should be completed for each access site under consideration. Use responses from Worksheet #1 where applicable, and it is okay for some information to be duplicated or shared



Figure 2. For the Clackamas River, Moore Creek Access was one of the access sites of interest for this river access planning project. Worksheet #2 would then be completed specifically for Moore Creek Access context

<input type="checkbox"/>	Identify Current Recreation Use (Worksheet #2, p. 2-3)
<input type="checkbox"/>	Classify Current Recreation Setting (Worksheet #2, p. 1-2)
<input type="checkbox"/>	Describe Resource Trends (Worksheet #2, p. 4, Q2)

<input type="checkbox"/>	Assess Functionality (Worksheet #2, p. 3-4, complete only if access site is existing)
<input type="checkbox"/>	Describe Regulatory and Management Framework (see Worksheet #1, p. 13)

Step 1 Worksheets

The Worksheets below allow teams, whose members represent an array of disciplines and perspectives, to build a foundation of resources for the access planning process. The information collected within the Toolkit then provides a “living” document to be shared with all participating in the project for years to come. Projects will vary in scope and complexity such as re-envisioning one access site versus several within a particular system. However, simply completing the Worksheets affords more information about a river system to all planning team participants.

[Reach Analysis Field Worksheet #1](#)

- Assess 7 Core Elements of the Reach/River System. The information covered in worksheet #1 may duplicate some information in worksheet #2 but serves to provide a high-level overview of a river system.

To plan and design an effective access site, these core elements need to be considered, and the information needs to be accessible and easy for all stakeholders and project advocates to understand.

- A. System and Location
- B. Landscape Setting
- C. Temporal Dependence
- D. Frequency
- E. Density
- F. Use Type and Challenge Level
- G. Management

[Access Site Analysis Field Worksheet #2](#)

- Assess specific access sites (e.g., current or future). Complete this Worksheet once for every access site of project interest.

Step 1 Resources:

Helpful Links:

- River Management Society:
<https://www.river-management.org/river-access-planning-guide>

River Access Project Examples & Planning Documents:

*Examples provided may not utilize the RAPG framework

- <https://www.bendparksandrec.org/wp-content/uploads/2022/01/BPRD-Deschutes-River-Access-and-Habitat-Restoration-Plan-FINAL.pdf>

Academic & Management Literature References:

- <https://www.river-management.org/water-trails>
- <https://www.waterwaymanagement.org/home>

Step 2: Identify Desired Access

Step 2 is the envisioning phase that encourages your team to develop a shared vision for the project area using baseline information gathered in Step 1 with the assistance of Worksheets #1 & #2. Questions that reference desired conditions involve creative thinking and re-envisioning what is possible at an access site, regardless of current conditions.

Let's get started with reviewing Step 2 Tips, then the Step 2 Tasks which align with Worksheets #3 questions.

Step 2 Tips

- **Conduct outreach, field visits, planning charrettes, envisioning workshops, one-on-one interviews, and other forums where ideas can be shared among a variety of user groups.**
Notes (e.g., which methods are most practical and when can this process begin?)
- **Prepare maps and other graphics that will help set the stage for planning. Use iconography where possible to make information easily visually accessible.**
Notes (e.g., are any maps of the project area or access sites available to showcase? Make a list of available maps):
- **Share information on recreation use trends and known access constraints, so the team is thinking about limitations and potential solutions from the outset.**
Notes (e.g., what are the major problem areas or use trends that need to be considered?):
- **Identify target recreation opportunities that a new or improved access and launch facility would support. Classify these opportunities by recreation use and opportunities.**
Notes: (e.g., consider aspects of single-use or multi-use design for the access site(s)).

Step 2 Tasks

<input type="checkbox"/>	<p>Organize the Team (Q3.1) Organize the team and be sure to have varied expertise and perspective represented in the group and with local or regional neighbors and consultative liaisons or partners.</p>
<input type="checkbox"/>	<p>Review Baseline River Access Information (Q3.2 – 3.6) Through interactive work sessions, share maps and information of the project area with the planning team. Begin identifying specific access needs for participants and the constituents they represent.</p>
<input type="checkbox"/>	<p>Identify and Describe Target Recreation Uses (Q3.7 – Q3.11) A project area may offer a range of opportunities for recreation uses and experiences that individually or collectively drive specific access needs. Target recreation opportunities may include those described in Step 1.</p>
<input type="checkbox"/>	<p>Identify and Describe Target Recreation Experiences (Q3.12) Once the team has developed a cohesive vision that effectively communicates target recreation opportunities, the next step is to characterize desired recreation experiences. The planner has a responsibility to facilitate dialogue to ensure that information gathered in Step 2 can be integrated into the recreation setting characteristics that are developed in Step 3.</p>

Step 2 – Worksheet #3: Formulating Desired Access

**Worksheet #3, as will all Worksheets, will be made into separate, clickable PDF document as Worksheets 1 & 2 above*

WORKSHEET #3 (Step 2)

REACH:

SITE:

ORGANIZE THE TEAM

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Q3.1: List potential team members and their affiliations to reflect the complexity of the project area:

REVIEW BASELINE RIVER ACCESS INFORMATION

RAPG Page 40

Q3.2: Describe potential outreach or other facilitation workshops which are feasible to implement for the project team (including dates & times, where possible):

Q3.3: List the major problems and resource and recreation trends specific to this access site :

Q3.4: List available resource information (e.g., maps, website links, social media accounts) specific to this access site as ready references.

Q3.5: Are there maps, GIS resources, or other reference data are desired that the project area currently does not have (e.g., water trail map, hydrology, gauge information, soils)? Please list these.

Q3.6: Identify and list specific facilities or amenities that are of particular interest (e.g., ADA requirements or restroom facilities):

IDENTIFY AND DESCRIBE DESIRED TARGET RECREATION USES

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“Desired condition descriptions paint a picture of what the particular area [access site] will look like, feel like, sound like, and function like in the future. They do not answer the question of how conditions will be maintained or achieved—that comes later” (IVUMF, 2016, p. 30).

Q3.7: Given the information documented in Step 1 Worksheets 1 & 2, list all desired recreation activities that should be considered for planning this new or improved access site:

*Remember this is an opportunity to list activities that may not be currently accessible at this site

Q3.8: Describe desired conditions for this site regarding **seasonal/temporal use** and **density**:

*Remember this is an opportunity to consider current seasonal usage and density and envision what is desired for this site (see RAPG p. 19,23,33).

Q3.9: Describe desired conditions for this site regarding **challenge level**:

*Remember this is an opportunity to consider current challenge level and envision what is desired for this site (see RAPG p. 25 &33).

Q3.10: Describe desired conditions for this site regarding **frequency** of use:

*Remember this is an opportunity to consider current frequency use and what is desired for this site. (see RAPG p. 21).

Q3.11: Describe desired conditions for this site regarding **landscape setting**:

*Remember this is an opportunity to consider current landscape setting and what is desired for this site (see RAPG p. 17).

IDENTIFY AND DESCRIBE DESIRED TARGET RECREATION EXPERIENCES

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*The IVUMF (2016) suggests to: “Involve creative writers. The more compelling and meaningful the description of desired conditions, the easier it will be to identify and mobilize efforts to implement on-the-ground actions” (p. 33)

“Desired conditions are defined as statements of aspiration that describe resource conditions, visitor experiences and opportunities, and facilities and services that an agency strives to achieve and maintain in a particular area [access site]...Desired conditions describe what conditions, outcomes, and opportunities are to be achieved and maintained in the future, not necessarily what exists today”(IVUMF, 2016, p. 30).

An example of a desired conditions statement for a river access site is:

“This take-out/day-use facility should provide separate areas to support these different recreational uses: the take out should provide a paved ramp, staging areas, SCAT machine, vault toilets, garbage receptacles, and sufficient parking to support vehicle shuttles. The site would require regular facilities management from May-October and permit monitoring. The day-use areas should be physically and visually separated from the take-out area. Facilities, such as picnic tables or benches, should be subordinate to the natural setting. Paths or ADA-accessible walkways should lead to water to best support fishing or waterplay” (RAPG, p. 42).

Q3.12: As a team, develop a cohesive desired conditions statement (i.e., 5-10 sentences) for the new or improved access site using the information documented above (Q3.2-Q3.11)

Step 2 Resources:

Helpful Links:

- Interagency Visitor Use Management Council
<https://visitorusemanagement.nps.gov/VUM/Framework>

River Access Project Desired Conditions Examples & Planning Documents:

*Examples provided may not utilize the RAPG framework

- Insert resources here (coming soon)

Academic & Management Literature References:

- Insert resource links here (coming soon)

Step 3: Define Desired Recreation Setting Characteristics (p. 43)

Step 3 applies structure to the conceptual ideas and desired conditions brainstorming in Step 2 by describing them within the context of **recreation setting characteristics**. Recreation Setting Characteristics are derived from the Recreation Opportunity Spectrum (ROS) and represent a continuum of classes from natural to enhanced recreation settings; these classes are

characterized by components that include **biophysical, social, and managerial attributes**. Many of the questions in Worksheet #4 below will ask again about desired aspects of river access but this time specifically focusing on recreation setting attributes (see Table 1).

Table 1. Examples of potential river setting attributes

Biophysical attributes	Social attributes	Managerial attributes
Terrestrial vegetation	Recreationists (type, number)	Recreation facilities
Aquatic vegetation	Visitor expectations	Water storage facilities
Water quality	Patterns of visitation	Water delivery systems
Soils/rocks/cliffs Topography/slope	Visitor behaviors	Rules/regulations
Fish and wildlife	Visitor safety issues	Interpretation
Natural sounds	Visitor conflicts	Fees and charges
Visual resources	Vandalism and litter	Site design
Water flows	Automobiles and trains	Health and safety closures
Water elevations, drawdown	Historic sites	Length of season
Lightscares	Cultural resources	Recreation maintenance
Endangered species	Adjacent private land uses	Recreation programs
Human development	Special uses	Law enforcement/security
- Industrial/commercial	Special values	Signage
- Municipal/residential	Density of use	Restoration activities
- Manmade structures	Types, size, and speed of boats	Administrative sites
- Infrastructure	Shoreline activity	Reservoir drawdown
Water surface acreage	Airplanes	Water safety lights/markers
River length, width, gradient	Commercial shipping	Timed flow releases
River flows	Type and level of noise	Fishery management
Natural hazards	Nuisance behavior	Vegetative management
Air quality	Unlawful activities	Access roads/launches
Natural beauty	Agricultural activities	Accessible facilities
Geologic formations		Personnel and volunteers
Climate and winds		Level of patrol
Canals and shipping locks		Permits

Source: *Water and Land Recreation Opportunity Spectrum (WALROS)* (Auckerman, 2011, p. 9).

Attributes classes of Biological and Physical are combined as "Biophysical."

Review essential Step 3 Tips noting what might be important for your specific river, reach or sites and Step 3 Tasks which align with Worksheets #4 questions.

Step 3 Tips

- Begin thinking through the biophysical, social, and managerial attributes of the river access project areas. Questions to ignite your thinking include:**

(Biophysical) - What level of infrastructure is needed, and how will that impact sensitive resources?

(Social) - What level of visitor use should be provided for?

(Managerial) - What level of management would be required, and how does that affect operational costs?

- **For biophysical impacts to access project areas, it is acceptable at this stage to plan around resource degradation at a broad scale** (site-specific evaluations will be considered in more detail in Step 4)?
Notes (e.g., make a list of available maps):

Step 3 Tasks

<input type="checkbox"/>	Identify Planning Zones (Q4.1) Chart or map access needs for the entire project area(s) based on the type of facility needed to support uses and experiences. Planning zones are developed to address desired recreation experience summarized in Step 2. This step will identify which access sites focus on single uses during certain seasons or flows (e.g., a play area or wave) versus those that support a broader recreation experience
<input type="checkbox"/>	Describe Access Planning Components A – D (Q4.2 – 4.5): This step maps out the ideas generated in Step 1 to ensure that access is designed to support desired recreation setting characteristics and related outcomes.
<input type="checkbox"/>	A. Physical Attributes (Q4.2)

	Using baseline information developed in Step 1, and stakeholder input from Step 2, and planning zone maps developed in Step 3, identify and map potential new or modified physical attributes across access project locations.
<input type="checkbox"/>	B. Social Attributes (Q4.3) Consider the social setting and desired conditions for level of use, visitor interaction, group size, or potential for solitary experience based on the assessment in Step 1. The planning team needs to consider how new or modified access locations identified above influence the social setting of the access location, particularly in the context of conflicting uses or mobilizing larger groups from a launch point.
<input type="checkbox"/>	C. Biological Attributes (Q4.4) Consider the presence, distribution, and relationship of sensitive resources in the project area to existing or new access locations. Adjust access locations or managerial constraints (see managerial attributes) accordingly to account for resource protection. The planning team needs to consider how the location of facilities and/or potential changes in visitor use may degrade important resources.
<input type="checkbox"/>	D. Managerial Attributes (Q4.5) Consider the management level necessary to achieve desired recreation experiences and maintain access facilities, targeted social setting, accessibility, and necessary natural, cultural, and scenic resource protection.
<input type="checkbox"/>	Establish a Planning Direction (Q4.6) Summarize access needs and planning direction in map format. This stage results in the creation of a master plan for site selection and design that responds to the initial questions in this step (step 3).

Step 3 - Worksheet #4: Define

**Worksheet #4, as will all Worksheets, will be made into separate, clickable PDF document as Worksheets 1 & 2 above*

WORKSHEET #4 (Step 3)

REACH:

SITE:

IDENTIFY PLANNING ZONES

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Q4.1: List access needs required within each project area to sustain or improve desired recreation experiences and plot these needs on the project area map.

DESCRIBE ACCESS PLANNING COMPONENTS & ATTRIBUTES

(Biological, Physical, Social, Managerial)

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Q4.2 (Physical):

List the major physical attributes for planning consideration within each project area site (Table X)

List major roads or trails connected to each project area:

Q4.3 (Social):

List the major social attributes for planning consideration within each project area site (Table X)

How would a new or improved access support the desired social recreation setting?

What issues could arise related to carrying capacity, staging and circulation, and potentially conflicting uses?

Would new or improved access alter the social setting?

Q4.4 (Biological)

List the major biological attributes for planning consideration within each project area site (Table X)

How does the location of facilities and/or potential changes in visitor use potentially degrade important resources? Are there any trends?

Q4.5 (Managerial):

List the major managerial attributes for planning consideration within each project area site (Table X)

Q4.6: Summarize the attributes, access needs and planning direction for the project area(s). Organize those needs spatially by labeling them on the project map.

NEW ACCESS PLANNING & SITE FACILITY PLACEMENT QUESTIONS

(RAPG Page 46)

**the following questions (i.e. 4.7 -) are helpful to consider when planning entirely new access areas that have not yet been established.*

Q4.7: Noting river processes and geomorphology, here are good sections within the project or river setting area(s) that are ideal for new river access?

List facilities that are required for the desired recreation experiences at each project site(s).

Where would each facility be located at each project site(s)?

What is the potential frequency of use for the project site(s)?

Given the frequency of use, what is the desired scale of the facilities planned?

What are unique design considerations (e.g., turnarounds, launches, restrooms, accessible features, cleaning stations, informal kiosks) for the various facilities given the desired recreational opportunities planned for each site(s).

Would new or enhanced roads or trails be required to accommodate access facilities described above, and how would this potentially alter the recreation setting?

What site locations might facilitate barrier-free access or use of universal design elements?

Step 3 Resources:

Helpful Links:

- Interagency Visitor Use Management Council
<https://visitorusemanagement.nps.gov/VUM/Framework>

River Access Attribute Planning Resources & Project Examples:

*Examples provided may not utilize the RAPG framework

- Insert resources here (coming soon)

Academic & Management Literature References:

- Insert resource links here (coming soon)

Step 4: Evaluate Site Options and Select a Preferred Site (p. 49)

Step 4 is a process for site evaluation and selection that features a balance among all the information collected in Steps 1-3. The outcome of this step is the determination of whether new or enhanced access construction or implementation supports the desired recreation experiences within the larger recreation setting. Step 4 is the shortest in the Toolkit, but most important to decide what aspects of a project will actually be set in motion.

Step 4 Tip

- Summarize site options in map format for all potential project area site(s). Illustrate trade-offs pertaining to recreation experience, setting, and development constraints by answering the questions in Worksheet #5 below.

Step 4 - Worksheet #5: Evaluating Project Site(s) Options

**Worksheet #5, as will all Worksheets, will be made into separate, clickable PDF document as Worksheets 1 & 2 above. Worksheet #5 contains the Tasks for Step 4.*

WORKSHEET #5 (Step 4)

REACH:

SITE:

[Evaluate Site Options & Preferences](#)
[RAPG Page 49](#)

Q5.1: How do recreation setting characteristics for each access site project area(s) support the desired condition?

Q5.2: What physical constraints exist at each access location(s)?

Q5.3: Do physical site(s) limitations restrict the ability to separate uses? Please provide examples...

Q5.4: Where are known sensitive resources in the target access location(s)? What can the project planners do to avoid impacts to these resources or mitigate through design solutions?

Q5.5: Do site constraints (topography, surface materials, etc.) and budget allow for the design of barrier-free access or universal accessibility? If not, how is this issue addressed?

Q5.6: Which site(s) best work with the naturally occurring or human-induced river processes and geomorphology of the river?

Step 4 Resources:

Helpful Links:

River Access Project Examples & Planning Documents:

*Examples provided may not utilize the RAPG framework

- Insert resources here (coming soon)

Academic & Management Literature References:

- Insert resource links here (coming soon)

Step 5: ASSESS FACILITY DESIGN, CONSTRUCTABILITY, AND PROJECT IMPLEMENTATION

(p. 51)

Step 5 allows for the planning team to begin considering factors related to the design, construction and implementation of the access project for each potential access site. To determine the level of design needed to guide a project, components are separated into the following stages: concept design, site limitations, construction documents, details, and specifications, constructability and construction period and timing.

Step 5 Tips

- **Summarize site-specific information in map format. Illustrate trade-offs pertaining to site design, constructability & implementation as it relates to the recreation experience, setting, and development constraints of each site(s)**

Notes: (e.g., pinpoint where on the project map each proposed facility or project idea should occur and its relations to the factors mentioned)

Step 5 Tasks

<input type="checkbox"/>	<p>Assess Facility Design, Constructability, And Project Implementation First Tasks (Q6.1 - 6.5)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Depending on the level of use, design approaches must consider site size, site amenities, the life cycle of materials used proposed recreation activities, and the potential to integrate or separate activities. <input type="checkbox"/> Identify development levels approaching the river and the facility needs for access related to the specific types of experiences (Natural, Enhanced, Constructed). <input type="checkbox"/> Describe specific cultural and natural resources to be protected and/or enhanced at the site.
<input type="checkbox"/>	<p>Create and Assess a Concept Design (Q6.6)</p> <p>The concept design is a spatial representation of the on-site facilities and how their distribution and locations work to mitigate site issues and support desired user experiences.</p>
<input type="checkbox"/>	<p>Document Site Limitations (Q6.7-12)</p> <p>Site limitations such as topography, land ownership, existing infrastructure, subgrade utilities, sensitive environmental and cultural resources, stockpiling/disposal constraints, and construction access influence constructability of the design.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Consider how existing topography influences the ability of equipment to access the site. <input type="checkbox"/> Develop a plan for how to use the byproducts from site clearing to support the construction efforts. Identify areas for staging and stockpiling materials that do not impact sensitive resources. <input type="checkbox"/> Coordinate construction access with neighboring landowners and agencies. Identifying necessary permissions, permits, and agreements associated with access will help determine the size and amount of equipment that may enter the site to support the work.
<input type="checkbox"/>	<p>Organize Construction Documents (Q6.13-14)</p>

	Construction documentation represents the “blueprints” consisting of technical details and specifications that are needed to support layout and construction of the physical site amenities.
<input type="checkbox"/>	<p>Assess Constructability (Q6.15-18)</p> <p>Constructability refers to the technical and financial feasibility of an overall project design, including consideration of the construction approach and techniques. Facility design and constructability should reflect the desired outcomes communicated by the constituent groups and the ability of facility managers to design, afford, construct, manage, and maintain the site.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ensure construction documentation, details, and specifications describe a comprehensive installation process as well as a recommended maintenance regime. <input type="checkbox"/> Layout drawings and design details need to describe the distribution and materials of the site amenities and facilities, whereas design details will describe how the features are to be constructed. <input type="checkbox"/> Develop specifications to communicate the parameters of the construction (e.g., how and where materials are to be staged and areas to be fenced and protected from construction impacts) and the parameters of materials (e.g., gravel, paving, concrete, stone, vault toilet, etc.).
<input type="checkbox"/>	<p>Construction Period and Timing (Q6.19-23)</p> <p>After identifying a construction window for the project, factors such as regulatory mandates, river conditions (low-water conditions are often ideal for construction), precipitation, and revegetation considerations will determine the most appropriate time to begin construction and operate within the established work period.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Document seasonal variation of flows, dam release timing, and the potential drawdown of water to determine appropriate timing for construction. <input type="checkbox"/> Develop appropriate revegetation and erosion control measures and identify specific equipment needed to work at the site. <input type="checkbox"/> Identify the time needed for post- construction activities. For example, revegetation efforts outside of the primary construction period may coincide with early-season rainfall and/or the commercial availability of plant materials.

Step 5 - Worksheet #6: Access Design & Construction

**Worksheet #6, as will all Worksheets, will be made into separate, clickable PDF document as Worksheets 1 & 2 above.*

WORKSHEET #6 (Step 5)

REACH:

SITE:

**ASSESS FACILITY DESIGN,
CONSTRUCTABILITY, AND PROJECT
IMPLEMENTATION FIRST TASKS**
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Q6.1: What is the size of the site(s) within the project area? (e.g., acreage, square footage)

Q6.2: List the specific site amenities being considered to improve or construct for the site(s):

Q6.3: What are the proposed recreation activities available to visitors for each site(s)? Do these activities require integration or separation design considerations?

Q6.4: What is the development level for the access site(s)? (e.g., natural, enhanced, constructed)

Q6.5: Describe specific cultural and natural resources to be protected or enhanced at the site(s):

CONCEPT DESIGN
(RAPG Page 53)

Q6.6: What are the planning team's ideas and processes to develop or contract out a concept design for the access project(s):

SITE LIMITATIONS

(RAPG Page 54)

Q6.7: Describe the topography and related factors of the site(s) as it relates to potential point-of-entry locations for heavy machinery or construction needs:

Q6.8: What construction/clearing byproducts can be anticipated, and how can those byproducts be tagged or upcycled into other project efforts?

Q6.9: Which site(s) areas should be marked or specified as staging and stockpiling zones of construction? (e.g., on a map, pin-point and delineate exactly where the zone is)

Q6.10: Who from the planning team is in charge of communicating with neighboring landowners and/or other agencies to discuss construction access logistics including equipment size, number of machines, operating hours, etc.)?

Q6.11: List the neighboring landowners and/or agencies potentially impacted for each site:

Q6.12: What permits or agreements related to construction access are required for each site, and are those permits approved or pending?

CONSTRUCTION DOCUMENTATION

(RAPG Page 54)

Q6.13: Who from the planning team is responsible for managing construction documentation for each site?

Q6.14: List the construction documents required for the project site(s) along with status (e.g., pending or completed)

CONSTRUCTABILITY

(RAPG Page 55)

Q6.15: Based upon the construction documentation for the project area(s), describe any factors for the installation process that still need to be reviewed or attended to:

Q6.16: Describe ideas and processes for a maintenance regime for all project areas.

Q6.17: Specify design details (i.e., parameters of construction including equipment staging and materials including gravel, paving, concrete, etc.) for each element of the project under construction at each site.

Q6.18: What is the life-cycle of the materials being used for construction as well as their durability at each site? (e.g., is surface material able to withstand 200+ users per day? Is the timber used in the project able to withstand intense sun and flooding conditions?)

CONSTRUCTION PERIOD AND TIMING

(RAPG Page 56)

Q6.19: List the regulatory mandates or other aspects of this project that may impact the timing of construction for each site:

Q6.20: Describe any factors related to seasonal variations of flows, dam release timing or water-drawdown for each access site that may affect construction timing:

Q6.21: Describe the plans and equipment required to develop revegetation and control erosion at the site(s).

Q6.22: Develop a brief timeline for post-construction activities at each site (e.g., revegetation):

Q6.23: Given all the information above, what is the best project time window for construction for each site?

Step 5 Resources:

Helpful Links:

River Access Construction Documents & Project Examples:

*Examples provided may not utilize the RAPG framework

- Insert resources here (coming soon)

Academic & Management Literature References:

- Insert resource links here (coming soon)

Step 6: Conduct Site Monitoring (p. 57)

Monitoring the desired condition and recreation setting of a site is integral in identifying what is and is not working once a site is developed. Monitoring results can inform changes or improvements to a site over time. Site monitoring can function in three ways: post-occupancy evaluation, visitor use management and experience monitoring

Step 6 Tasks

<input type="checkbox"/>	Post Occupancy Evaluation (Q.7.1-3)
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	<p>Post-Occupancy Evaluation ensures that the design was constructed as specified in the construction plans and the integrity of sites resources were protected as directed in the plans.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check that punch list items are completed as directed by the plans or as communicated through contracts. <input type="checkbox"/> Review documentation that sensitive resources were protected from construction-related impacts. If impacts are identified, provide a plan for enhancement and/or restoration. <input type="checkbox"/> Perform final review of materials and facilities to ensure that all facilities were installed per manufacturer specifications and/or design details. Confirm that construction activities resulted in no damage to facilities or resources.
<input type="checkbox"/>	<p>Visitor Use and Experience Monitoring (Q7.4-7)</p> <p>The concept design is a spatial representation of the on-site facilities and how their distribution and locations work to mitigate site issues and support desired user experiences.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Evaluate the types of recreation uses and determine if observed uses are consistent with planned uses. <input type="checkbox"/> Determine if recreation setting characteristics are consistent with planned opportunities and desired outcomes. Consider physical, social, managerial, and biological setting characteristics. <input type="checkbox"/> Evaluate facility condition and function.

Step 6 - Worksheet #7: Conduct Site Monitoring

**Worksheet #7, as will all Worksheets, will be made into separate, clickable PDF document as Worksheets 1 & 2 above.*

WORKSHEET #7 (Step 6)

REACH:

SITE:

CONDUCT SITE MONITORING

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Q7.1: What plans, if any, still require attention or completion regarding the project site plan?

Q7.2: What sensitive resources, if any, were impacted by the construction process?

Q7.3: Who is responsible for completing a final walk-through of the project site to check installation and design details were followed through on by contractors? What date will this take place?

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Q7.4: Is a new recreational activity or use occurring that was not previously considered at the project site?

Q7.5 Are new river access sites attractive places for dispersed camping that was not occurring before?

Q7.6: Describe how the post-construction recreation setting attributes are consistent with planned recreational opportunities and outcomes for each site (e.g., consider river setting attributes in Step 3)

Q7.7: Are recreation facilities and amenities functioning in a manner that supports desired recreation use and protects resources?

Step 6 Resources:

Helpful Links:

- Interagency Visitor Use Management Council
<https://visitorusemanagement.nps.gov/VUM/Framework>

River Access Monitoring and VUM Project Examples:

*Examples provided may not utilize the RAPG framework

- Insert resources here (coming soon)

Academic & Management Literature References:

- Insert resource links here (coming soon)