



Certification Guide

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Working Collaboratively for a Healthy Verde River

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Introduction

About this Guide

In February 2020 Friends of the Verde River (FVR) and The Nature Conservancy released the first ever Verde River Watershed Report Card, empowering local communities to develop solutions to their most pressing socioecological problems through a shared framework of values and goals. One of the clearest findings in the 2020 report card was the need for additional housing that does not have negative impacts on watershed health. In this context, River Friendly Development certification was born.

Built over two years and more than 80 man-hours of advisory council meetings, with input from local elected officials, government staff, environmental and community non-governmental organizations, and regionally relevant developers, this certification guide represents the current state of the River Friendly Developments certification.

However, these standards are still in a draft phase and are **not final**. FVR plans to partner with developer(s) in the coming months to implement pilot certification(s) and will use this experience to further develop the program before launching a final criterion set. Some criteria, such as “Respect Indigenous Cultures and Communities” and “Protect Threatened and Endangered Species,” have been left mostly undeveloped so as not to constrain our thinking until site specific circumstances arise during the pilot phase. As such, any reader of this document should view it as what it is: an appraisal of how River Friendly development could occur that will be filled in, adapted, and developed based on real world experience.

River Friendly Developments Certification

Certification Process

River Friendly Developments is a “build” certification: certification is conferred upon completion of construction and there is no renewal process. However, a developer can, at their expense, choose to have FVR assess projects or project plans at any stage of the process and provide an *initial assessment*. In this initial assessment FVR staff will determine how a project would score if constructed as designed. Initial assessments are private documents shared between the developer and FVR; however, the developer may choose to make the document public at their discretion. Developers who wish to maintain the River Friendly nature of their developments over the long-term can do so through the River Friendly Communities program, which covers long-term maintenance.

Certification, therefore, occurs in the following steps:

1. (OPTIONAL) Developer submits project plans, a description of project status, and initial assessment fees to FVR. FVR writes an initial assessment describing how a project would score if constructed as designed.
2. Developer constructs development.
3. Developer submits as-builts, criteria-specific documentation, and final assessment fees to FVR. FVR inspects project in-person and scores project using standards laid out in this document.
4. (IF NECESSARY) Developer corrects any deficiencies identified in FVR inspection and submits reassessment fees to FVR. FVR re-inspects project.
5. If qualified, FVR confers certification to project.

Themes and Elements

River Friendly Developments are scored according to twenty elements organized into four themes. Themes are broad categories related to Friends' vision of a maintaining a healthy, flowing Verde River and tributaries that support our natural environment, vibrant communities, and quality of life for future generations. Specifically, these themes are Sustainable Water Supply, Clean Water, Healthy Habitat, and Connected and Supportive Community. Within each theme are elements, which are the parameters that are graded against standards to determine if a project qualifies to be a River Friendly Development.

Required vs. Optional Elements

River Friendly Developments are scored using a system that includes both *required* and *optional* elements. All *required* elements must be present in a residential development at the time of certification for a project to be certified. *Optional* elements are available to developers who wish to reach higher levels of certification.

Scoring

River Friendly Developments are scored using a point system for each element. Points are not awarded for meeting required elements. Points are available for optional elements according to the rubric laid out in this document. Points for optional elements are not additive within a category; rather, a project earns the number of points at the level they qualify for. Because not all projects will be scoreable in each category (e.g., properties without riparian habitat cannot restore that habitat) the total number of points available will vary by project.

Tiers

River Friendly Developments are certified at one of four levels, as shown in the table below.

LEVEL	POINTS
BRONZE	Meets all requirements & 0-50% of possible points
SILVER	Meets all requirements & 50-75% of possible points
GOLD	Meets all requirements & 75+% of possible points

Sustainable Water Supply

Minimize Outdoor Water Use

AT A GLANCE:

MINIMIZE OUTDOOR WATER USE

THEME	Sustainable Water Supply
REQUIREMENT	Required
POINTS AVAILABLE	25

PURPOSE:

To reduce the amount of groundwater pumping necessary to support a development.

STANDARD:

Reduce the landscape water requirement in common areas by at least X% from the calculated baseline using the EPA WaterSense Water Budget Tool, where X is defined using the scoring system below;

And,

Ensure initial landscaping on individual units meet the River Friendly Home landscaping standards.

SCORING:

Requirement	10 points	15 points	25 points
Reduce the landscape water requirement in common areas by at least 50% from the calculated baseline using the EPA Water Sense Water Budget Tool	Reduce the landscape water requirement in common areas by at least 75% from the calculated baseline using the EPA Water Sense Water Budget Tool	Reduce the landscape water requirement in common areas by at least 85% from the calculated baseline using the EPA Water Sense Water Budget Tool	Reduce the landscape water requirement in common areas by at least 90% from the calculated baseline using the EPA Water Sense Water Budget Tool
Ensure initial landscaping on individual units meet the River Friendly Home landscaping standards	N/A	N/A	N/A

Minimize Indoor Water Use

AT A GLANCE:

MINIMIZE INDOOR WATER USE

THEME	Sustainable Water Supply
REQUIREMENT	Required
POINTS AVAILABLE	0

PURPOSE:

To reduce the amount of groundwater pumping necessary to support a development.

STANDARD:

All fixtures in initial build must meet requirements to be EPA WaterSense labeled.

SCORING:

Requirement
All fixtures in initial build must meet requirements to be EPA WaterSense labeled

Provide Reliable Water Access

AT A GLANCE:

PROVIDE RELIABLE WATER ACCESS

THEME	Sustainable Water Supply
REQUIREMENT	Not Required
POINTS AVAILABLE	25

PURPOSE:

To centralize decision making and resources so that residents can better adapt to potential declines in groundwater levels.

STANDARD:

Provide water to all units and common areas through a centralized water delivery system.

SCORING:

Requirement	25 points
N/A	Provide water to all units and common areas through a centralized water delivery system

Use Effluent as a Resource

AT A GLANCE:

USE EFFLUENT AS A RESOURCE

THEME	Sustainable Water Supply
REQUIREMENT	Required
POINTS AVAILABLE	50

PURPOSE:

To reduce the amount of groundwater pumping necessary to support a development.

STANDARD:

Either

Connect all units to centralized wastewater treatment plant;

Or,

Connect all units to a centralized septic system.

Additional points available for a demonstrating an ability to re-use or recharge treated effluent.

SCORING:

Requirement	10 points	20 points	30 points	50 points
EITHER connect all units to centralized wastewater treatment plant	Demonstrate an ability to use 25% of treated wastewater for uses which would have otherwise used potable water or recharge an equal amount to groundwater	Demonstrate an ability to use 50% of treated wastewater for uses which would have otherwise used potable water or recharge an equal amount to groundwater	Demonstrate an ability to use 75% of treated wastewater for uses which would have otherwise used potable water or recharge an equal amount to groundwater	Demonstrate an ability to use 90% of treated wastewater for uses which would have otherwise used potable water or recharge an equal amount to groundwater
OR, connect to onsite centralized septic system	N/A	N/A	N/A	N/A

Use Rainwater as a Resource

AT A GLANCE:

USE RAINWATER AS A RESOURCE

THEME	Sustainable Water Supply
REQUIREMENT	Not Required
POINTS AVAILABLE	40

PURPOSE:

To reduce the amount of groundwater pumping necessary to support a development.

STANDARD:

Demonstrate an ability to use rainwater that falls on impervious surfaces for non-potable uses.

Additional points available for increased rainwater use.

NOTES:

Use average monthly rainfall at the site for all calculations. Infiltrated rainwater can reduce net consumptive water use for the project.

SCORING:

Requirement	5 points	20 points	30 points	40 points
N/A	Demonstrate an ability to use rainwater that falls on rooftop of common buildings for non-potable uses.	Demonstrate an ability to use 25% rainwater that falls on impervious surfaces for non-potable uses or infiltrate an equal amount to groundwater	Demonstrate an ability to use 50% rainwater that falls on impervious surfaces for non-potable uses or infiltrate an equal amount to groundwater	Demonstrate an ability to use 75% rainwater that falls on impervious surfaces for non-potable uses or infiltrate an equal amount to groundwater

Offset Impacts of Groundwater Use

AT A GLANCE:

OFFSET IMPACTS OF GROUNDWATER USE

THEME	Sustainable Water Supply
REQUIREMENT	Required
POINTS AVAILABLE	50

PURPOSE:

To reduce the impact of groundwater pumping on waterways.

STANDARD:

Purchase water offset credits in a quantity equal to the first X years of net projected consumptive water use, where X is defined using the scoring system below.

NOTES:

Baseline conditions for calculating net consumptive water use is average water use on site over the preceding 5 years. If project is found to reduce consumptive use relative to current conditions points are awarded at the highest level.

SCORING:

Requirement	10 points	25 points	50 points
Purchase water offset credits in a quantity equal to the first 5 years of projected consumptive water use	Purchase water offset credits in a quantity equal to the first 10 years of projected consumptive water use	Purchase water offset credits in a quantity equal to the first 15 years of projected consumptive water use	Purchase water offset credits in a quantity equal to the first 25 years of projected consumptive water use

Clean Water

Protect Waterways from Vehicles

AT A GLANCE:

PROTECT WATERWAYS FROM VEHICLES

THEME	Clean Water
REQUIREMENT	Required
POINTS AVAILABLE	0

PURPOSE:

To minimize the impacts of vehicles on water quality.

STANDARD:

All stream crossings for motorized vehicles must be constructed so that traffic passes over the water level.

NOTES:

If no perennial waterways are on the project site this element is omitted.

SCORING:

Requirement
All stream crossings for motorized vehicles must be constructed so that traffic passes over the water level

Protect Waterways from Trash

AT A GLANCE:

PROTECT WATERWAYS FROM TRASH

THEME	Clean Water
REQUIREMENT	Required
POINTS AVAILABLE	0

PURPOSE:

To prevent trash from reaching waterways.

STANDARD:

Develop at least one trash receptacle per 1/2 acre of park space AND at all trailheads.

SCORING:

Requirement
Develop at least one trash receptacle per 1/2 acre of park space AND at all trailheads

Protect Waterways from Pets and Livestock

AT A GLANCE:

PROTECT WATERWAYS FROM PETS AND LIVESTOCK

THEME	Clean Water
REQUIREMENT	Required
POINTS AVAILABLE	5

PURPOSE:

To prevent pet and livestock waste from reaching waterways.

STANDARD:

Develop at least 1 pet waste station per 1/2 acre of park space,

And;

No livestock pens 200 ft of perennial, natural waterways.

Additional points available for public education materials describing the importance of cleaning pet waste to water quality.

SCORING:

Requirement	5 points
Develop at least 1 pet waste station per 1/2 acre of park space	Develop public education materials on the importance of cleaning pet waste to water quality
No livestock pens 200 ft of perennial natural waterways	N/A

Protect Steep Slopes

AT A GLANCE:

PROTECT STEEP SLOPES

THEME	Clean Water
REQUIREMENT	Required
POINTS AVAILABLE	0

PURPOSE:

To prevent slope erosion to maintain water quality.

STANDARD:

Maximum slope disturbance shall not exceed standards summarized in the table below:

Slope Category	Maximum Allowable Disturbance
Below 19.9%	No restrictions
20-29.9%	30%
30%-39.9%	50%
Above 40%	No disturbance

SCORING:

Requirement
Maximum slope disturbance shall not exceed standards summarized in the table above

Manage Stormwater

AT A GLANCE:

MANAGE STORMWATER

THEME	Clean Water
REQUIREMENT	Required
POINTS AVAILABLE	25

PURPOSE:

To maintain the risk of flash flood events at pre-development levels.

STANDARD:

No increase in peak stormwater discharges during a 2-hour, X-year storm, where X is defined using the scoring system below.

NOTES:

Infiltration of retained stormwater may count towards rainwater use elements and reduce net consumptive water use.

SCORING:

Requirement	10 points	25 points
No increase in peak stormwater discharges during a 2-hour, 100-year storm	No increase in peak stormwater discharges during a 2-hour, 200-year storm	No increase in peak stormwater discharges during a 2-hour, 500-year storm

Healthy Habitat

Maintain Healthy Upland Habitat

AT A GLANCE:

MAINTAIN HEALTHY UPLAND HABITAT

THEME	Healthy Habitat
REQUIREMENT	Required
POINTS AVAILABLE	25

PURPOSE:

To maintain biodiversity and ecosystem functioning on the site.

STANDARD:

X% of 500-year floodplain undeveloped, where X is defined using the scoring system below.

NOTES:

Trails are permitted in undeveloped areas as long as total trail area does not exceed 1% of undeveloped area. Undeveloped areas can count towards outdoor recreation elements.

SCORING:

Requirement	10 points	25 points
10% of 500-year floodplain undeveloped	15% of 500-year floodplain undeveloped	20+% of 500-year floodplain undeveloped

Maintain Healthy Riparian Forest

AT A GLANCE:

MAINTAIN HEALTHY RIPARIAN FOREST

THEME	Healthy Habitat
REQUIREMENT	Required
POINTS AVAILABLE	25

PURPOSE:

To maintain biodiversity and ecosystem functioning on the site.

STANDARD:

Develop a riparian habitat management plan;

And,

No construction in 100-year floodplain except trails and stream crossings.

Additional points available for maintaining riparian forests to Verde Watershed Restoration Coalition (VWRC) standards.

NOTES:

If no perennial waterways are located on project site this element is omitted. Stream crossings must meet standards developed in “Protect Waterways from Vehicles” element. Undeveloped riparian areas count towards outdoor recreation elements.

SCORING:

Requirement	10 points	15 points	25 points
Develop a riparian habitat management plan	Ensure 25% of riparian land meets VWRC standard	Ensure 50% of riparian land meets VWRC standard	Ensure 75+% of riparian land meets VWRC standard
No construction in 100-year floodplain except trails and stream crossings	N/A	N/A	N/A

Provide Native Habitat

AT A GLANCE:

PROVIDE NATIVE HABITAT

THEME	Healthy Habitat
REQUIREMENT	Required
POINTS AVAILABLE	15

PURPOSE:

To ensure wildlife has access to habitat on the site.

STANDARD:

Ensure that X% of landscaped landcover in common areas are native to site, where X is defined using the scoring system below;

And,

No invasive plants used in landscaped common areas.

NOTES:

Undeveloped upland and riparian areas count towards meeting this standard. Plants are considered “invasive” or “non-invasive” as defined by VWRC.

SCORING:

Requirement	10 points	15 points
Ensure that 75% of landscaped landcover in common areas are native to site	Ensure that 85% of landscaped landcover in common areas are native to site	Ensure that 95+% of landscaped landcover in common areas are native to site
No invasive plants used in landscaped common areas	N/A	N/a

Prevent Degradation of Public Land

AT A GLANCE:

PROVIDE NATIVE HABITAT

THEME	Healthy Habitat
REQUIREMENT	No
POINTS AVAILABLE	25

PURPOSE:

To ensure public lands abutting the project are not degraded.

STANDARD:

Work collaboratively with managing agency of public lands directly abutting the project to develop and implement a plan to minimize resource degradation.

NOTES:

If public lands do not directly abut the project this element is omitted.

SCORING:

Requirement	25 points
N/A	Work collaboratively with managing agency of public lands directly abutting the project to develop and implement a plan to minimize resource degradation

Connected and Supportive Community

Grant Public Access

AT A GLANCE:

GRANT PUBLIC ACCESS

THEME	Connected and Supportive Community
REQUIREMENT	No
POINTS AVAILABLE	25

PURPOSE:

To provide outdoor recreation opportunities for the general public and foster stewardship of natural resources.

STANDARD:

Allow public access to outdoor recreational facilities during daylight hours.

SCORING:

Requirement	25 points
N/A	Allow public access to outdoor recreational facilities during daylight hours

Provide Access to Outdoor Recreation

AT A GLANCE:

PROVIDE ACCESS TO OUTDOOR RECREATION

THEME	Connected and Supportive Community
REQUIREMENT	Yes
POINTS AVAILABLE	20

PURPOSE:

To connect residents to outdoor recreational opportunities and foster stewardship of natural resources.

STANDARD:

Ensure 80% of residences are within ½ mile of an outdoor recreation opportunity.

Additional points available for ensuring new residential structures are within 3 miles of a trailhead.

NOTES:

Undeveloped open spaces count towards this requirement if undeveloped open spaces are trailed.

SCORING:

Requirement	10 points	20 points
Ensure 80% of residences are within ½ mile of an outdoor recreation opportunity	Ensure 75% of new residential structures will be within 3 miles of a trailhead	Ensure 90% of new residential structures will be within 3 miles of a trailhead

Educate the Public About the Environment

AT A GLANCE:

EDUCATE THE PUBLIC ABOUT THE ENVIRONMENT

THEME	Connected and Supportive Community
REQUIREMENT	No
POINTS AVAILABLE	5

PURPOSE:

To foster stewardship of natural resources.

STANDARD:

Develop and display educational materials to educate public on the ecology of site.

SCORING:

Requirement	5 points
N/A	Develop and display educational materials to educate public on the ecology of site