



NAPA RIVER WATERSHED RAIN GARDEN REIMBURSEMENT APPLICATION FORM

The **Napa County Flood Control and Water Conservation District** is offering a 75% reimbursement of eligible costs for installation of rain gardens in an effort to improve water quality and reduce stormwater runoff in the Napa River Watershed. The Flood District will reimburse applicants in the Napa River Watershed \$5 per square foot of rain garden installed, up to a maximum of \$1,500 for residential properties and up to \$5,000 for Commercial, Industrial and Institutional properties. Funding for this program comes from the State of California water bond measure, Proposition 84, administered by the California Department of Water Resources, and is subject to funding availability. Funding ends in June 2015. All costs must be submitted to the Flood District by June 15, 2015.

Steps to participate

- Step 1:** Call the Flood District at 707-259-8600 to set up a brief pre-inspection visit.
- Step 2:** Following pre inspection, submit completed application to the Flood District.
- Step 3:** Await receipt of notice to proceed from the Flood District. Do not begin construction until you have approval.
- Step 4:** Construct your rain garden according to the terms and conditions.
- Step 5:** Call the Flood District to set up a post-construction inspection. Post inspection must take place within 6 months of the notice to proceed.
- Step 6:** Submit final documentation (receipts) to the Flood District.
- Step 7:** You will receive your check within 6-8 weeks after all documentation is received.
- Step 8:** Participate in a project completion survey.

Note: All costs must be submitted to the Flood District by June 15, 2015

**Napa County Flood Control
& Water Conservation District**

804 First Street
Napa, CA 94559
(707) 259-8600



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REQUIREMENTS:

- Applicant must own (or obtain written permission from the owner) a residential or commercial property in the Napa River Watershed.
- Reimbursement valid only for rain gardens that are a minimum of 25 square feet for residential properties and 125 square feet for CII properties.
- Applicants are eligible for 75% reimbursement of eligible expenses up to \$5.00 per square foot and \$1,500 maximum for residential properties and \$5,000 maximum for commercial properties.
- Rain gardens installed before January 1, 2013 or after June 15, 2015 are not eligible.
- All rain gardens require a brief pre and post-installation site visit.
- Applicant labor is not reimbursable; however, licensed contractor labor is eligible for reimbursement.
- Copies of receipt(s) must be submitted to the Flood District.
- Due to limited funding, this reimbursement program can end at any time without notice. Please call 707-259-8600 to check funding availability.
- Applications will be processed on a first come, first served basis.
- Reimbursement checks will be mailed within 6-8 weeks after the Flood District receives completed documentation.

CUSTOMER INFORMATION:

Customer Name _____

E-mail Address _____ Home Phone Number _____

Mailing Address _____

City _____ State _____ Zip Code _____

Installation address (*if different from mailing address*) _____

City _____ State _____ Zip Code _____

Additional information _____

I certify that I have met the following conditions to qualify for the Rain Garden Cost Share program:

- I own the property (or can obtain written permission from the owner) within the Napa River Watershed, on which the rain garden will be installed.
- I understand the function and design of rain gardens.
- I will finance 100% of the cost for rain garden installation and submit eligible receipts for reimbursement after a post-inspection.



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1. **Location Conditions:** Does the proposed location meet all of the following criteria?

- Garden is at least 10 feet from any building
- Garden is not over buried utilities (electric, phone, cable, storm sewer, septic, water, etc.). Call Underground Service Alert at 811 or 1-800-227-2600 or visit: <http://www.usanorth.org/> to mark the location of utilities on your property.
- Garden is at least 25 feet from any wells or septic systems
- The slope is less than 8% (8 foot rise over a 100 foot distance)

2. **Drainage Area:** What areas will shed water to the rain garden? Please check all that apply and estimate the size of the area that will supply the rain garden.

Drainage Area	Estimate the size of the area in square feet
<input type="checkbox"/> House Roof	
<input type="checkbox"/> Garage Roof (if separate from the house)	
<input type="checkbox"/> Driveway (only the portion that will slope to the rain garden)	
<input type="checkbox"/> Other (please explain)	
Total Estimated Drainage Area:	

3. **Water in the rain garden:** How will water enter the rain garden?

	Comments
<input type="checkbox"/> Extended Downspout	
<input type="checkbox"/> Buried/Overland Pipe	
<input type="checkbox"/> Vegetated Swale/Dry Creek Bed	
<input type="checkbox"/> Other (please explain)	



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4. **Rain Garden Planting Design:** Sketch the shape of the rain garden below and show which plants you will be planting and where. Provide a scale and attach a separate sheet if needed. Use water-wise or native plants. If you are using a professional or pre-made design, please attach.



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5. **Cost Estimate:** Estimate the number and cost of plants, soil, mulch, and cost of renting equipment that you intend to purchase for your rain garden. Attach additional pages as needed. If hiring a contractor, please provide their cost proposal.

Proposed Costs	Number	Price per Unit	Subtotal
<i>Example plant A</i>	15	\$2.00	\$30.00
<i>Example mulch</i>	1 cubic yard	\$50.00	\$50.00
1			
2			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
		Total Price	



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6. Estimated Cost per Square Foot:

Size of Rain Garden (square footage)	_____ Square feet
Cost of Rain Garden	\$ _____
Cost per square foot = cost/size	\$ _____
75% of Total Estimated Cost	\$ _____ *
Total Rebate Amount	\$ _____

***Maximum reimbursement is the lesser of 75% of total costs or \$5.00 per square foot.**

RAIN GARDEN COST SHARE TERMS AND CONDITIONS

If I am awarded a Napa County Flood Control and Water Conservation District (District) Rain Garden Cost Share, I hereby acknowledge/agree to:

1. Read and understand all the information provided in the cost share grant documents and the brochure by the Bay Area Stormwater Management Agencies Association (BASMAA), including the design, function, and construction process of rain gardens.
2. Construct a residential rain garden according to the plans submitted in the Cost Share Application and as approved by the District.
3. Complete the rain garden within six (6) months of the Notice to Proceed from the District. **Note that all costs must be submitted to the Flood District by June 15, 2015.** To ensure water savings are achieved, the converted area must remain in compliance with program terms and conditions for a period of five (5) years following receipt of the rebate. An applicant may be charged part or all of the reimbursed amount at the District's discretion if the terms or conditions have been violated. Notwithstanding the foregoing, this requirement is void upon transfer of ownership.
4. Tenants/Renters: If applicant is not the property owner, written consent from the property owner must be provided to District staff at the pre-inspection visit.
5. At post-inspection, applicant must provide a list of plants, hardscape, and other materials used in the rain garden (may be handwritten). If the garden fails inspection, applicant will be given thirty (30) days to bring project into compliance.
6. Reimbursement is limited to one Rain Garden Cost Share per Napa River Watershed household or CII.
7. Ensure that the 25% cost share does not come from other State funding sources (including Cash for Grass rebates utilizing Prop 84 funds offered by municipalities in Napa County).
8. Educational/interpretive signage is encouraged on CII projects.



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9. Avoid planting within utility and drainage easements and road right-of-way areas. Call Underground Service Alert at 811 or 1-800-227-2600 or visit: <http://www.usanorth.org/> before digging.
10. Property owner is required to obtain all required permits.
11. Track expenditures and keep receipts during rain garden construction.
12. Authorize access by District staff or their contractors to conduct a pre and post inspection of the project and to use photos and information gained from project for public outreach.
13. Submit reimbursement requests to the District within 4 months of the post inspection, providing all receipts for materials and/or services.
14. Maintain the rain garden for a minimum of 5 years including irrigation during plant establishment and weeding when needed or at least 3 times a year.
15. Allow the District to inspect the project for up to 5 years.

Further, I understand that the District will not authorize payment of the reimbursement request unless full documentation is received and until all construction tasks are complete.

By signing this document, applicant holds District and its officers, agents and employees harmless from any and all liability, claims, losses, damages or expenses for personal injury or property damage arising from the installation and use of the rain garden.

I certify to the best of my knowledge that the information included in this application is true, complete, and accurate and I agree with the terms listed above.

Applicant's Signature: _____ Date: _____

Applicant's Name (Please print): _____



District Use only:

Date Received: _____ Manager Signature: _____

Date of Pre-Inspection: _____ By: _____ Date of Post Inspection: _____ By: _____

Notes: _____

RAIN GARDENS

Stormwater Control for Small Projects



Bay Area Stormwater
Management Agencies
Association



Large Residential Rain Garden

Rain gardens are landscaped areas designed to capture and treat rainwater that runs off roof and paved surfaces. Runoff is directed toward a depression in the ground, which is planted with flood and drought-resistant plants. As the water nourishes the plants, the garden stores, evaporates, and infiltrates rainwater into the soil. The soil absorbs runoff pollutants, which are broken down over time by microorganisms and plant roots.

Rain gardens are a relatively low-cost, effective, and aesthetically pleasing way to reduce the amount of stormwater that runs off your property and washes pollutants into storm drains, local streams, and the San Francisco Bay. While protecting water quality, rain gardens also provide attractive landscaping and habitat for birds, butterflies, and other animals, especially when planted with native plants.

Is a Rain Garden Feasible for My Project?

Rain gardens are appropriate where the following site characteristics are present:

- Rain gardens should be installed at least 10 feet from building foundations. The ground adjacent to the building should slope away at a 2% minimum slope. A downspout extension or "swale" (landscaped channel) can be used to convey rain from a roof directly into a rain garden. Rain gardens can also be located downstream from a rain barrel overflow path.
- Rain gardens should be at least 3 feet from public sidewalks (or have an appropriate impermeable barrier installed), 5 feet from property lines, and in an area where potential overflow will not run onto neighboring properties.
- The site should have well-drained soil and be relatively flat. Soil amendments can improve infiltration in areas with poor drainage. Add about 3 inches of compost to any soil type and till it in to a depth of about 12 inches.
- A front or backyard can work well for a rain garden, especially in areas where the slope naturally takes the stormwater.

How Large Does My Rain Garden Need to Be?

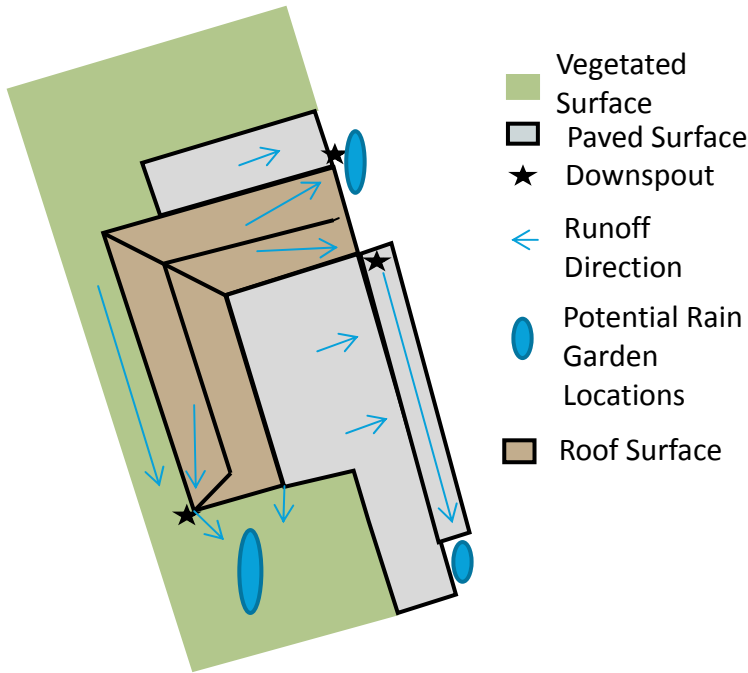
A general recommendation for a garden with a 6-inch ponding depth is to size the rain garden to approximately 4% of the contributing impervious area. Your soil type will affect how the rain garden should be sized because the water infiltration rate depends on the soil type; rain gardens should be larger in areas with slower infiltration. The following table can be used as general guidance.

Contributing Area (sq. ft.)	Rain Garden Area (sq. ft.)
500 – 700	24
701 – 900	32
901 – 1,100	40
1,101 – 1,300	48
1,301 – 1,500	56
1,501 – 2000*	70

*Projects adding roof or other impervious areas in excess of 2,000 sq. ft. should add 20 sq. ft. of rain garden surface area per every 500 sq. ft. of additional area.

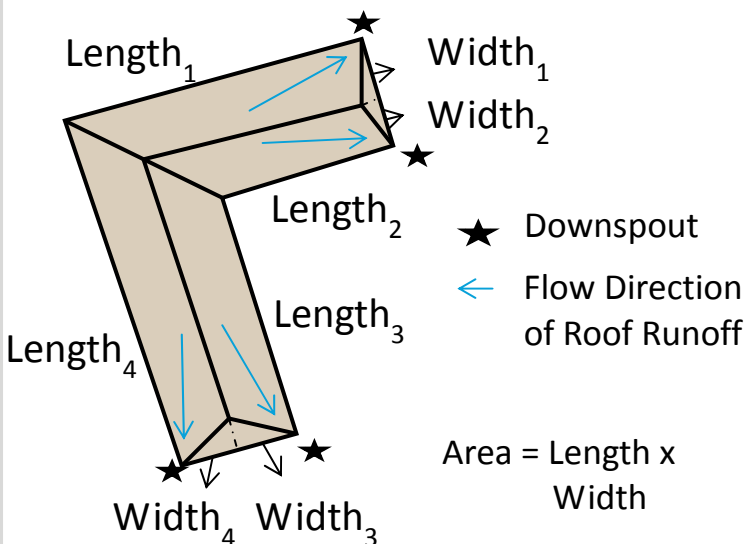
How to Plan and Install a Rain Garden

Select a Location and Plan for Overflow



- Before choosing the location of your rain garden, observe how rainwater is distributed across your home and yard. The ideal rain garden location is a flat or gently sloped area and is down slope from a runoff source.
- Site your garden at least 10 feet away from any structures (unless an impermeable barrier is used) and 5 feet from property lines.
- Avoid siting your garden over underground utilities and septic systems, near large trees, or next to a creek, stream or other water body.
- Your rain garden will overflow in large storms. Therefore, all garden designs should include an overflow system. One option is to build the perimeter of the garden so that it is perfectly level and to allow water to gently spill over the top during large storms. Another option is to build in a spillway that connects to another landscaped area, or the storm drain system.

Plan the Size of Your Rain Garden

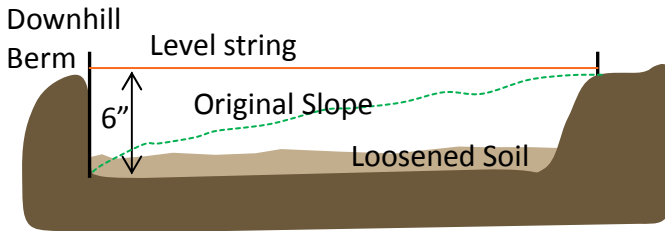


- Once you have determined where your garden will be sited, look at the surrounding area and identify which surfaces will contribute runoff to the garden. Is it all or just a part of the roof, patio, or driveway?
- Estimate the roof area by measuring the length and width of the building foundation and adding a few inches for the overhang. Multiply the length times the width to determine the contributing area. Once you have calculated the area of each contributing surface, add them up to obtain the total contributing area.
- Refer to the chart on page 1 to identify the size of the rain garden you will need to manage runoff from the contributing area.

If you do not have the space, budget, or interest in building a garden of this size, you may consider capturing some of your roof runoff in rain barrels to reduce the amount of runoff, or discharge the overflow to another landscaped area.

How to Plan and Install a Rain Garden

Install your Rain Garden



- Once you have selected a site and planned the size of your rain garden, lay out the shape using a string or tape to define the outline of where you will dig.
- If the yard is level, dig to a depth of 6-inches and slope the sides. If the site is sloped, you may need to dig out soil on the uphill side of the area and use the soil to construct a small berm (a compacted wall of soil) along the down slope side of the garden.
- Use a string level to help level the top of the garden and maintain an even 6-inch depth.
- Once the garden is excavated, loosen the soil on the bottom of the area so you have about 12 inches of soft soil for plants to root in. Mix in about 3 inches of compost to help the plants get established and improve the water-holding capacity of the soil.
- If water enters the garden quickly, include a layer of gravel or river rock at the entry points to prevent erosion.

Select Appropriate Plants



California Fuchsia



Common Rush



White Sage



Douglas Iris

You can design your rain garden to be as beautiful as any other type of garden. Select plants that are appropriate for your location and the extremes of living in a rain garden

Site Considerations:

- How much light will your garden receive?
- Is your property near the coast or located in an inland area (this affects sun and temperature)?
- Are there high winds near your home?

Recommended plant characteristics:

- Native plants adapted to local soil and climate,
- Drought tolerant,
- Flood tolerant,
- Not invasive weedy plants,
- Non-aggressive root systems to avoid damaging water pipes,
- Attracts birds and beneficial insects.

*Contact municipal staff to obtain a full list of recommended plants, provided in the countywide stormwater guidance.

Design Checklist

When installing a rain garden, the following design considerations are recommended.

- ❑ Locate the rain garden at least 10 feet from home foundation, 3 feet from public sidewalks, and 5 feet from private property lines. If rain gardens need to be located closer to buildings and infrastructure, use an impermeable barrier.
- ❑ Locate the rain garden to intercept and collect runoff from a roof downspout or adjacent impervious area.
- ❑ Size the rain garden appropriately based on the soil type and drainage area (see Page 1).
- ❑ Do not locate the rain garden over septic systems or shallow utilities. Locate utilities before digging by calling Underground Service Alert at 811 or (800) 227-2600.
- ❑ Locate the rain garden on a relatively flat area, away from steep slopes. If you plan on moving a large quantity of soil, you may need a grading permit. Contact your local municipality for further assistance.
- ❑ Consider installing an underdrain to enhance infiltration in very clayey soils. Contact municipal staff for guidance on how to properly install an underdrain.
- ❑ An overflow should be incorporated in the rain garden to move water that does not infiltrate to another pervious area and away from the home's foundation or neighboring property.
- ❑ Drought and flood resistant native plants are highly recommended and a variety of species should be planted. Avoid invasive plants. Contact municipal staff for a list of plants appropriate for rain gardens from the applicable countywide stormwater guidance. A list of invasive species may be found at the California Invasive Plant Council website (www.cal-ipc.org).

Maintenance Considerations

Once a rain garden is installed, the following steps will help the garden function effectively.

- ❑ Rain gardens should be irrigated periodically (as needed) during dry months, especially while plants are being established. Plants should be inspected for health and weeds should be removed as often as necessary.
- ❑ Apply about 2 inches of mulch and replace as needed. Mulch with a material that will not float away such as compost or a larger sized hardwood mulch (avoid microbark, for example).
- ❑ Areas of erosion should be repaired. Further erosion can be prevented by stabilizing the eroding soil with ground cover or using energy dispersion techniques (e.g., splashblock or cobbles) below downspouts.
- ❑ Avoid using synthetic fertilizers or herbicides in your rain garden because these chemicals are water pollutants.
- ❑ Standing water should not remain in a rain garden for more than 3 days. Extended periods of flooding will not only kill vegetation, but may result in the breeding of mosquitos or other vectors.



The City of Los Angeles and Geosyntec Consultants are acknowledged for providing text, formatting and various images used in this fact sheet. Contra Costa County is acknowledged for an image used in the fact sheet.