USDA United States Department of Agriculture
Natural Resources Conservation Service

332 – Contour Buffer Strips Implementation Requirements

Producer:		**Project or Contract:**	
Location:		**County:**	
Farm Name:		**Tract Number:**	

Practice Lifespan – 5 years



Practice Purpose(s): (check all that apply)

- ☐ Reduce sheet and rill erosion.
- ☐ Reduce water quality degradation from the transport of sediment and other water-borne contaminants downslope.
- ☐ Improve soil moisture management through increased water infiltration.
- ☐ Reduce water quality degradation from the transport of nutrients downslope.
- ☐ Other: (Specify)

Description of work:

NRCS Review Only

Designed By:		**Date**	
Checked By:		**Date**	
Approved By:		**Date**	

332 – Contour Buffer Strips
Implementation Requirements

GENERAL CRITERIA FOR ALL PURPOSES:

Surface flow from contoured crop rows must be delivered to a stable outlet.

Design the width of the cropped strip to accommodate some multiple of full equipment width.

Do not plant buffer strips with any plants listed on the noxious weed list of Vermont.

Do not use buffer strips as travel lanes for livestock or equipment.

Buffer strips are not a part of the normal crop rotation (however, they may be harvested or grazed), and will remain in place until they need to be renovated or re-established.

Row Grade: When the row grade of any crop strip reaches the maximum allowable design grade, establish a new baseline up or down slope from the last buffer strip for the layout of the next crop strip.

Arrangement of Strips: A crop strip will occupy the area at the top of the hill, unless unusually complex topography requires vegetation in this area in order to establish a farmable system.
When used in combination with terraces, diversions or water and sediment control basins, the layout of the buffer strips shall be coordinated with the grade and spacing of the other practices so that the buffer strip boundaries will parallel the practices as closely as possible. Locate the buffer strip immediately upslope from the terrace channel, or diversion, or the storage area of the water and sediment control basin.

Additional Criteria to Reduce Sheet and Rill Erosion ☐ Check if Applicable

Minimum Row Grade: The cropped strips will have sufficient row grade to ensure that runoff water does not pond and cause unacceptable crop damage.

Maximum Row Grade: The maximum row grade will not exceed:
- One-half of the up-and-down hill slope percent used for conservation planning, OR 2%, whichever is less.
- Up to 3% row grade is allowed for a maximum of 150 feet as crop rows approach a stable outlet.

Width of Strips: The minimum width will be:
- At least 15 feet wide for strips planted to grasses or grass-legume/forbs mixtures with at least 50% grass and
- At least 30 feet wide when legumes/forbs are used alone or legumes make up more than 50% of the stand.

Increase buffer strip widths as needed to keep the width of the cropped strips uniform. The width of the individual buffer strips may vary.

Cropped strips will be of uniform width between buffer strips and will not exceed 50% of the slope length (L), used for the erosion calculation.

Vegetation: Establish buffer strips to permanent vegetation consisting of grasses, legumes/forbs, or grass-legume/forb mixtures.

Establish species that are adapted to the site, and tolerant of the anticipated depth of sediment deposition.

The buffer strips will have at least 95% ground cover during periods when erosion is expected to occur on the cropped strips.

The stem density for grasses and grass-legume/forb mixtures will be at least 50 stems per square foot, and for pure legume/forb stands at least 30 stems per square foot.

Additional Criteria to Reduce Water Quality Degradation from the Transport of Nutrients Downslope

☐ Check if Applicable

Minimum Row Grade. Follow the criteria outlined in the Additional Criteria to Reduce Sheet and Rill Erosion.

Maximum Row Grade. Follow the criteria outlined in the Additional Criteria to Reduce Sheet and Rill Erosion.

Vegetation: Establish buffer strips to permanent sod-forming vegetation with stiff, upright stems.

Width of Strips: Buffer strips will be at least 15 feet wide. Increase the buffer strip widths as needed to keep the width of the cropped strips uniform.

The maximum width of cropped strips will be one-half of the field slope length or 150 feet, whichever is less.

Arrangement of Strips: In addition to the buffer strips established on the hillside, establish a buffer strip at the bottom of the slope. Make the bottom strip two times the width of the narrowest buffer strip in the system.

Additional Criteria to Improve Soil Moisture Management Through Increased Water Infiltration

☐ Check if Applicable

Row Grade: The grade along the upper edge of the buffer strip shall not exceed 0.2%

Width of Strips: The minimum width will be:

• At least 15 feet wide for strips planted to grasses or grass-legume/forb mixtures with at least 50% grass and

• At least 30 feet wide when legumes/forbs are used alone or legumes/forbs make up more than 50% of the stand.

Increase buffer strip widths as needed to keep the width of the cropped strips uniform. The width of the individual buffer strips may vary.

Cropped strips will be of uniform width between buffer strips and will not exceed 50% of the slope length (L), used for the erosion calculation.

Vegetation: Establish buffer strips to permanent vegetation consisting of grasses, legumes/forbs, or grass-legume/forb mixtures.

Establish species that are adapted to the site, and tolerant of the anticipated depth of sediment deposition.

The buffer strips will have at least 95% ground cover during periods when erosion is expected to occur on the cropped strips.

The stem density for grasses and grass-legume/forb mixtures will be at least 50 stems per square foot, and for pure legume/forb stands at least 30 stems per square foot.

OPERATION AND MAINTENANCE:

- Conduct all farming operations parallel to the strip boundaries except on headlands or end rows with gradients less than the criteria set forth in this standard.
- Time mowing or harvest of buffer strips to maintain appropriate vegetative density and height for optimum trapping of sediment from the upslope cropped strip during the critical erosion period(s).
- Fertilize buffer strips as needed to maintain stand density.
- Mow or harvest sod turn strips and waterways at least once a year.
- Spot seed or totally renovate buffer strip systems damaged by herbicide application after residual action of the herbicide is complete.
- Redistribute sediment that accumulates along the upslope edge of the buffer strip/crop strip interface as needed. This sediment shall be spread evenly upslope over the cultivated strip when needed to maintain uniform sheet flow along the buffer/cropped strip boundary.
- If sediment accumulates just below the upslope edge of the buffer strip to a depth of 6 inches or more, or stem density falls below specified amounts in the buffer strip, relocate the buffer/cropped strip interface location.

332 – Contour Buffer Strips
Implementation Requirements

- Cultivated strips and buffer strips shall be rotated so that a mature stand of protective cover is achieved in a newly established buffer strip immediately below or above the old buffer strip before removing the old buffer to plant an erosion-prone crop. Alternate repositioning of buffer strips to maintain their relative position on the hill slope. If an established buffer is removed, a equipment width will be added to one crop strip and subtracted from another.
- Renovate vegetated headlands or end row area as needed to keep ground cover above 65 percent. Renovation shall only include the immediate seedbed preparation and reseeding to a sod-farming crop with or without a nurse crop.

SPECIFICATIONS:

Location and Layout Information	**Field #** **Strip #**	**Field #** **Strip #**	**Field #** **Strip #**	**Field #** **Strip #**
Cons. Planning Slope %	%	%	%	%
Maximum Allowable Contouring Row Grade	%	%	%	%
Minimum Allowable Contouring Row Grade	%	%	%	%
Cultivated Strip Width	FT	FT	FT	FT
Width of Equipment used in Cultivated Strips	FT	FT	FT	FT
Buffer Strip Width	FT	FT	FT	FT
Buffer Strip Length	FT	FT	FT	FT
Acres of Buffer Strip	AC	AC	AC	AC
Buffer Strip – Plant Species to Establish				
Seeding Date				
Seeding Rate (lb/ac PLS)				
Lime (tons/ac)				
Fertilizer Recommendation				
Additional Comments				

☐ A map(s) showing all fields planned for Contour Buffer Strips is attached. The map shows:

The approximate location of the baselines used to establish the system,

The location of stable outlets for the system

If you have questions about this planned **Contour Buffer Strips** practice contact:

Name:		Tel:		Email:	

332 – Contour Buffer Strips
Implementation Requirements

For NRCS Use Only:

PRACTICE CHECKOUT AND CERTIFICATION:
Certifying official completes 'Check Out information'

Recommendation: Attach digital photograph(s) to document practice installation and illustrate practice before and after effects.

CHECK OUT INFORMATION:

Crop Year: _____

CIN # (if applicable): _____

Amount Completed: Number of Fields: _____ Total Acres: _____

* Mark the completed field locations on the conservation plan map.

Remarks:

Certification Statement:
I certify that implementation of this conservation practice is complete, meets criteria for the stated purpose(s), and meets the NRCS conservation practice standard and specifications.

This practice meets NRCS standards and specifications ☐ Yes ☐ No

Check out and Certification by: _____ Date: _____
Planner/Technical Service Provider Signature