

Management of Working Lands

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Cover crops.¹Saturated buffer strips.²

| DESCRIPTION | Adjustments in agriculture, forestry or other land management practices to improve infiltration and evapotranspiration, and/or hold water in the landscape. May include use of small stone/earthen weirs in ephemeral channels or gullies to reduce runoff, planting native vegetation and maintaining riparian buffers. | | |
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| HOW DOES IT MITIGATE FLOOD RISK? | <ul style="list-style-type: none"> + Flood storage: The holding of floodwaters during a flood which are then gradually released into the drainage system. + Groundwater recharge: Downward movement of water from the surface to subsurface aquifers. | | |
| WHAT OTHER BENEFITS DOES IT PROVIDE? | <ul style="list-style-type: none"> + Habitat restoration/enhancement: Changing the physical, chemical or biological characteristics of a site with the goal of returning or improving the natural functions to the lost or degraded native habitat. + Improved water quality: Increasing suitability of water for a particular use based on selected physical, chemical and biological characteristics. | | |
| SCALABILITY | Small-scale application with potential for cumulative effects at watershed scale. | | |
| Advantages Relative to Traditional Flood Management | | Potential Barriers or Issues Relative to Traditional Flood Management | Potential Synergies with other NBS |
| <ul style="list-style-type: none"> + Can be applied incrementally. + Contributions can be made by private landowners as well as on state managed lands. | | <ul style="list-style-type: none"> + Lack of knowledge and capacity of state and local professionals regarding appropriate integration of flood/ NBS friendly landscape management practices. + Perception that performance is unknown. + Unfamiliarity with potential approaches and tradeoffs with existing land management goals. | <ul style="list-style-type: none"> + Floodplain Restoration/ Preservation. + Wetland/Prairie/ Forest Restoration and Enhancement. |

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| RESOURCES | |
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| EVALUATION TOOLS | DESIGN SUPPORT |
| <ul style="list-style-type: none"> + National Stormwater Calculator: https://www.epa.gov/water-research/national-stormwater-calculator + USGS Software and Models, Methods for Estimating Groundwater Recharge In Humid Regions: https://water.usgs.gov/ogw/gwrp/methods/software/ + USACE Ecosystem Restoration Model Library: https://cw-environment.erc.dren.mil/model-library.cfm?CoP=Restore&Option=Search&Type=Restore&Id=ALL + INVEST Habitat Quality: http://releases.naturalcapitalproject.org/invest-userguide/latest/urban_flood_mitigation.html + Automated Geospatial Watershed Assessment (AGWA) Tool: https://www.epa.gov/water-research/automated-geospatial-watershed-assessment-agwa-tool + Visualizing Ecosystems for Land Management Assessment (VELMA) Model: https://www.epa.gov/water-research/visualizing-ecosystem-land-management-assessments-velma-model-20 | <ul style="list-style-type: none"> + LDAF BMPs for Forest Management: http://www.ldaf.state.la.us/wp-content/uploads/2014/04/BMP.pdf + National Forest Service: https://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf + NRCS Managing Forests for Fish and Wildlife: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_010130.pdf + NRCS National Forestry Handbook: https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=37005.wba |
| CASE STUDIES | <ul style="list-style-type: none"> + Louisiana Certified Habitat Program: https://www.lnps.org/louisiana-certified-habitat + Pennsylvania Lawn Conservation Initiative: https://www.bayjournal.com/news/pollution/pa-initiative-to-convert-10-000-acres-of-lawns-into-meadows-forests/article_b07ea216-79d0-11ea-8198-571a9d2fbaff.html |

1 <https://www.nwf.org/~media/PDFs/Water/2015/Drought-and-Flood-Report-Final.pdf>

2 <http://www.saturatedbufferstrips.com/>