Individual Development Plans – Skills Matrix Category Definitions

SKILL	DEFINITION
Basic Ag & Agronomy	Basics of crops, cropping systems, tillage systems, agricultural equipment and livestock operations
Basic Construction Inspection	Applying surveying, communication, plan understanding, and documentation to install a project
Basic Hydraulics	Basic types of flow and where to find calculators to compute flow rates
Basic Hydrology	Watershed runoff factors, computation tools, and reading contours
Basics of Managed Grazing Systems	Includes introduction to grazing system management, reviewing existing grazing systems, resource inventory for grazing planning, plant ID, considerations for planning, estimating forage productivity, developing forage balances and prescribed grazing management.
Basic Pest Management	Principles of IPM including PAMS, alternative methods of pest control and WIN-PST
Basic Surveying	Types of instruments, use of instruments, common terms, types and purposes of surveys
Forestry Basics & Practices	Concepts of forest inventory, identification of appropriate tree/shrub species, silvics for target species, identification of soil suitability and limitations, planting methods and equipment and types of planting stock
GIS	GIS software concepts. Importing and working with layers, labeling, scaling, map making, using some common tools
Minimum Impact Design Standards	Calculator to compute benefits of projects
Native Vegetation, Habitats, & Pollinators	Selecting appropriate native plant species to match the ecosystem, wildlife habitat needs and/or pollinator needs
Plant ID	Identification of introduced and native grasses and forbs in native plant communities, forage systems and implemented conservation practices
Soil Erosion Prediction Models	Use of software that models and predicts wind and water erosion
Soil Health and Management	The four soil health principles and how to manage land to maximize soil health
Soil Mechanics	Generally, a 2-day course (SM-1) covering the USCS classification system and includes hands-on texturing and understanding engineering properties of soils. Application of soils' properties to project design.

Vegetation - Species, Seeding and Seed Mixes	Concepts of species selection, developing seed mixes with appropriate diversity to meet standards, using seed calculator tools, site preparation, seeding equipment and seeding methods, making fertilizer recommendations, reading seed tags and calculating pure live seed, state seed law and noxious weed law
Wetland ID & Ecology Basics	Concepts of hydrology, hydrophytic vegetation, hydric soils and ecological functions and values of wetlands
Wildlife Habitat Assessment	How to assess if needed habitat elements for target wildlife species are present
Advanced Hydraulics	Hydraulic design software (e.g. SITES, WinPOND, HydroCAD, HMS, RAS) for flood routing, structure design, and channel flows
Advanced Hydrology	Software (e.g. HMS, HydroCAD) and/or working with larger watersheds and subwatersheds
Advanced Livestock Grazing Management	Pasture monitoring/assessment, extending grazing season, grassland management took, management in silvopasture, drought and wet weather management, fertility and soil health, biological control of undesirable species
Advanced Soil Mechanics	Generally, SM-2 course to plan boring investigations, logging, and understanding landscape features
CAD	Drafting software. Using templates, importing survey, creating surfaces, general drafting techniques. Typically related to AutoCAD software "Civil 3D"
Concrete Construction	Concrete mixes, reinforcement, installation methods, reading plans and specs
Electronic Surveying	Set up and utilization of survey grade GPS and Total Stations, along with utilizing stakeout and other more complex features of Trimble software
Forest Ecology & Management	Application of biological, ecological and social knowledge to the management and conservation of plantations and natural forests
Wildlife Habitat Management	How to create and/or manage habitat for target wildlife species
Basic Conservation Planning	Core Competency Module
Soils & Soil Survey Basics	Core Competency Module
Water Quality Basics	Core Competency Module