

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project

a.	Name & Title: Mark Burchick Associate, Natural Resource Management, Ecologist	stormwater management, expert testimony, company marketing, administration and proposals, construction oversight and management, and numerous types of <i>'field methods of ecology'</i> for miscellaneous environmental studies and surveys. Mr. Burchick has taught forest ecology and stream bioengineering courses at numerous state colleges in Maryland and Virginia. Mr. Burchick has developed numerous interpretive educational programs and presentations. The following select projects represent Mr. Burchick's experience: o Arlington County, VA, Watershed Assessment. Project manager for stream inventory and assessment survey. The study documented the physical, chemical and biological condition of all perennial streams in Arlington County. Mr. Burchick utilized rapid stream assessment technique (RSAT), RBP II and MBSS protocols, producing final reports which prioritized natural resource threats, concerns and hazards and also addressed detailed management practices, retrofits, education and training programs, riparian planting and stream restoration opportunities. Other watershed assessment, threat prioritization and management plans that Mr. Burchick has managed include: The City of Gaithersburg, Greenbelt and Rockville, Baltimore City, Severn Run and Accotink Creek. o Montgomery County Government Natural Resource Study, Dickerson Master Plan, Montgomery County, MD. Lead responsibility in providing a full appraisal of natural resources on 910-acres of county-owned property. Field assessment included a complete forest analysis, wetland delineation, rare plant survey and protection plans, wildlife habitat analysis and monitoring of storm water discharges. Developed best management practices (BMP's) for proposed development, as well as designing an integrated study for utilization of natural areas, reclamation plans and several portions of the master plan. o Bainbridge Landfill Cap, Stream Design/Build, Ecological Restoration, Cecil County, MD. OHM Remediation Corporation (Navy contract). Responsible for the delineation, permitting, design/build ecological restoration of a 2000linear foot reach of toxic contaminated headwater stream channel which was removed and placed into a sealed hazardous waste landfill. The excavated stream was filled and made into an underground infiltration trench along the perimeter of the completed landfill. A new surface stream was designed and built adjacent to the former channel and is now a fully functional and restored headwater stream that flows into the Susquehanna River at Port Deposit, Maryland. This phased restoration project, along with two other areas of on-site wetland restoration and mitigation represented 2 million dollars of the sixteen million dollar project. Mr. Burchick also performed similar environmental consulting services for OHM Remediation at the Patuxent Naval Air Station landfill in St. Mary's County, MD.
b.	Project Assignment: Project Manager (DGIF, DFS RFP #00375-336 EJW)	
c.	Name of Firm with which associated: Environmental Systems Analysis, Inc.	
d.	Years experience: With This Firm <u>8.0</u> With Other Firms <u>22.0</u>	
e.	Education: Degree(s) / Year / Specialization BS/1978/Natural Resource Management-Outdoor Recreation/Univ. MD MS/1984/Natural Resource Management-Systems Ecology/OPM X-118 MS Certificate/1991/Natural History Field Studies/USDA Graduate School	
f.	Active Registration: Year First Registered / Discipline 1992/Qualified Forestry Professional in the State of Maryland, MD DNR 2000/National 4-H/NRA Certified Shooting Sports Instructor US FWS Delmarva Fox Squirrel Trapping Permittee #ESP-34799	
g.	Other Experience and Qualifications relevant to the proposed project:	
Mr. Burchick is a former U.S. Park Ranger (natural resource manager) with the Department of the Interior, National Park Service, for a 14-year period and was heavily involved with construction management and supervision of ecological restoration projects and studies. Mr. Burchick also served as a manager of environmental services for two consulting engineering firms and co-founded an ecological restoration company, serving as a company principal for a 5-year period. As an Associate of ESA, Inc., for the last 8-years, Mr. Burchick is currently responsible for the management of multi-disciplinary natural resource scientists, support personnel and projects, providing environmental, natural resource management and ecological restoration services to civil engineering, legal, governmental, homeowner association and land development clients. Mr. Burchick manages and performs environmental consulting on land development feasibility studies, wetland and forest stand delineation, master planning, permitting and all forms of environmental compliance, mitigation design and long-term monitoring, forest conservation plans, ecological restoration plans, stream bioengineering design, pond and lake management,		

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o Navy Contract N62477-99-B-0081. ESA Inc. is the prime contractor for a five-year/five-million dollar *Indefinite Quantity Contract #N62477-99-B-0081* to provide *Exotic Plant Pest Control Services* to manage invasive alien plants at naval installations throughout the Chesapeake Bay region. The Navy expanded the program to include any/all Department of Defense facilities within the service area of the Department of Navy, EFA Chesapeake, Natural Resources Section. The geographical range of this contract includes military sites along the Bay, in Maryland and Virginia, and extends from the upper reaches of the Chesapeake at the Pennsylvania border to the confluence of the Bay with the Atlantic, in Virginia. To date ESA has performed three-years of research, survey, management planning and suppression activities at Patuxent Naval Air Station, U.S. Naval Academy and Dahlgren. ESA, Inc. has been assigned the duty of assisting naval natural resource management staff with preparation of natural resource and integrated pest management plans (IPM) and ecological restoration, from design through implementation and long-term monitoring. ESA is the prime contractor and is responsible for contract administration/compliance, serving as the point of contact, writing of management plans/schedules, research, identification, determination of phenological cycles, ground-truthing and mapping of invasives and rare plants, survey, plotting and digitizing, follow-up monitoring and all other forms of record keeping and billing. ESA performs small-scale backpack suppression activities and alternative IPM options such as hand pulling and/or other forms of chemical, biological and mechanical techniques. Under ESA supervision, *Chapel Valley* performs field operations using backpack and tanker treatments. Specific projects have included: suppression spray treatments plots at Patuxent Naval Air Station and the Naval Academy, preparation of IPM plans, mowing and brush clearing, wetland delineation, wetland and stream mitigation design, floristic surveys and ecological restoration design/build.

o United States Secret Service, James J. Rowley Training Center, Beltsville, MD, Master Plan Environmental Issues. Mr. Burchick is managing ESA's performance of flagged wetland delineation, jurisdictional determination, natural resource inventory, forest stand delineation, specimen tree survey and rare, threatened and endangered species review of the 490-acre, Secret Service Training Facility campus. ESA is generating the environmental base mapping (amenities versus constraints) from which the architectural and engineering design team performs site design. ESA will follow-on with regulatory permitting, environmental assessment, stormwater management, pond and lake management, trail design, environmental interpretive guides, wildlife management and site design issues as required.

Other select projects that Mr. Burchick has managed includes:

Parklands Related: Exxon Park, Main Street Wildlife Sanctuary - Exxon Corporation, Spring Ridge Wildlife Sanctuary Plan, MNCPPC Rural Legacy Master Plan Trail, MNCPPC Matthew Henson Master Plan Trail, MNCPPC Calverton Fairland Park, Howard County Parks Rockburn Branch and Blandair Parks, Potomac Kids Camp, Traville Sanctuary Plan, Chesapeake Bay Foundation, Headquarters Relocation, Natural Resources Management Plan, Fairfax County Park Authority Hunter-Hacor Assemblage and Lorton/Laurel Hill, James Creek Trail, Rock Creek Trail.

Residential Subdivisions: Ashton Preserve, Hoffman, Rollinmead, Briarcliff Manor, Turkey Foot, Dellabrooke, Woodlawn, Hodges & Landsdale, Shady Grove Village, Tudor Hall, Eagle Head, The Oaks at North Bethesda, Jacobs Ridge, Kings Crossing, Wildwoode, Nordeau and Dungan residential subdivisions.

Outdoor Environmental Education Curriculum: Sally K. Ride Elementary, Adelphi Elementary, Southern Elementary, Meade Heights Elementary, Lake Arbor Elementary, Northeast Elementary, Montgomery Blair High School, Patuxent High School, Broadneck High School, Boonsboro Schools Complex, Saint Hugh's, Holton Arms, Calverton School and Newport School.

Commercial/Industrial: Toro Energy Gas Main Alignment Plan through NASA Goddard Space Flight Center, USDA and FWS Patuxent Wildlife Refuge Center, US Gypsum, BASF Corporation, Arundel Mills (Mills Corporation), Triple M, Tri-State Marine, Rock Hall Fire Station, Jessup Park, Upper Potomac Industrial Park.

Arboriculture/Silviculture: Mr. Burchick is a member of the International Society of Arboriculture and has detailed experience in hazard tree evaluation, specimen tree evaluation, critical root zone analysis and expert witness regarding individual, grove, grouping, cluster and woodlot values and timber appraisals (using several field methods of ecology, ISA, COG and others). Mr. Burchick has prepared dozens of legal assessments for hazardous trees and reparations/work orders related to property damage, sanitation pruning, felling, snag tree management for wildlife, crop tree management, basal reductions, timber stand thinning, reforestation mitigation plans (design/build), performance maintenance/monitoring, and invasives management. Mr. Burchick was a principal author of the *Maryland Forest Conservation Act Technical Manual* addressing specimen tree evaluation, forest stand delineation and stand prioritization.

Wildlife Management Experience - As a USDI, NPS, US Park Ranger (Natural Resources Management), Mr. Burchick has performed oral bait rabies trapping for two years with Dr. John Hadidian of the USDI, NPS Center for Urban Ecology (our contractor) in Rock Creek Park, District of Columbia. Trapping protocols required each animal be put-down with ketamine, blood samples drawn, biological work-up performed (weight, size, parasites, relative health). Mr. Burchick has trapped over 200 raccoons related to this study. Mr. Burchick has also performed relative health necropsies on fox, deer and turkey. Mr. Burchick has participated in turkey trapping at George Washington Memorial Parkway and Prince William Forest Park for relocation to Rock Creek Park and C&O Canal (plan approved by Dr. Al Geis, FWS).

In conjunction with the Center for Urban Ecology, Mr. Burchick has performed red and gray fox trapping and radio collar telemetry tracking for several years at Rock Creek Park in the District of Columbia. Mr. Burchick has also performed small mammal trapping of mole, vole, shrew, mice (Sherman collapsible) in rotation cut meadows in relation to meadow diversification, cutting rotation schedules and interplanting research regarding the transformation of turf to meadow and vole damage of woody plantings at numerous sites located on National Park Service lands within the District of Columbia.

Mr. Burchick has responded to numerous snake, bat, raccoon, opossum, squirrel calls by National Park neighbors, has trapped and has relocated 'park' animals. Mr. Burchick has also caught/trapped numerous raptors, 'abandoned' and road injured animals and mercy killed, released them to regional rehabilitators or relocated them. National Park Service road injury mercy kills have included elk, mule deer, whitetail deer, raccoon, opossum, turtles, great-horned owl and several species of hawk, not to mention hundreds of road kill, that he has had to scrape and discard from parkland roadways. In writing and having cyclical wildlife management plans approved, Mr. Burchick has managed several extensive feral dog, feral cat and Norway rat eradication programs using trapping, baiting and firearms and/or immobilization dart rifles.

Mr. Burchick has participated in deer culling operations and/or consulting services at Catocin Mountain Park, Goddard Space Flight Center, Middle Patuxent Environmental Area and Naval Surface Weapons Center. He has also participated in mist trapping of birds with the Beltsville Agricultural Research Center, Patuxent Bird Club (Whitcomb and Robbins) and FWS. He has also trapped hundreds of sparrows and banded numerous bluebirds in support of active bluebird and martin boxes (Mark Wallace). He has also participated in several beaver trappings with Adcock's Trapping Service of Beltsville, Maryland.

Mr. Burchick, along with several ESA employees, are performing long term monitoring of SHA fish passage structures throughout Maryland and is performing electro-shocking, netting and tagging of fisheries to evaluate passage structure utilization and retrofit alternatives as well as the design/build of new structures.

Mr. Burchick has managed and trapped for Delmarva Fox Squirrel at the 800-acre Trappe 'New Town' Property located in Trappe, Maryland and the 1,300-acre Denton 'New Town' Property located in Denton Maryland. Both spring and fall trapping was performed, using FWS protocols. Mr. Guy Wiley was consulted and participated in training Mr. Burchick to ensure DNR consistency and subsequent approvals (Glenn Therres) of fall and spring final reports (Permit #ESP-34799).

Finally, Mr. Burchick has taken formal USDI training of multiple trapping techniques at Texas A&M and has recently been approved for MD DNR (Kevin Sullivan, USDA, Larry Hindman, DNR) for molt capture of resident geese, per a wildlife management plan written for the City of Greenbelt, Prince George's County, Maryland.