



# 2017-2018 Statement of Qualifications

PIVOT ENVIRONMENTAL LLC.

Pivot is a veteran owned Nevada LLC Serving: Nevada, California,  
Montana, Utah, Idaho, Arizona and the West

[www.pivotenv.com](http://www.pivotenv.com)



Environmental Plans and Permit Services

Biological and Ecological Surveys and Study Services

Construction & Biological Monitoring Services

Archaeological & Cultural Resource Services

Mine Planning, Permitting and Engineering Services

GIS Mapping and Analysis

Drone and Aerial Survey Services

Pivot Environmental LLC

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## About Pivot Environmental Consultants

## Pivot's Service Philosophy

## Pivot Services Overview

Environmental Plans and Permit Services

Biological and Ecological Surveys and Study Services

Construction and Biological Monitoring and Clearance Services

Archaeological and Cultural Resource Management Services

Mine Planning, Permitting and Engineering Services

GIS Mapping and Analysis, Drone and Aerial Survey Services

## Pivot People

## Our Experience

plan ▼ study ▼ permit ▼ dig



## About Pivot Environmental Consultants

### *Who We Are*

Pivot Environmental LLC (Pivot) has locations in Reno, Nevada and Missoula, Montana and works throughout the western United States. Pivot is a veteran-owned, small business founded specifically to provide top quality environmental and ecological, permitting and planning services. We develop our work to meet our clients' needs at a lower cost than most other environmental consultancies.

Pivot is a small company with big experience. All of our people are highly experienced professionals accustomed to providing top quality work. Pivot's client base represents a diverse array of public and private entities working in development, construction, mining, utilities operators, and industrial operations. Pivot works in these service sectors:

Natural Resource Management Programs and Projects  
Construction & Biological Monitoring, Environmental Inspections  
Mining, Energy, Industry and Utility Companies  
Native American Tribes and Tribal Organizations  
Infrastructure Development

### *Our Mission*

Pivot's mission is to provide simple, direct and cost-effective environmental compliance solutions for your project or initiative, allowing you to maintain your production or development schedules to the greatest extent possible. Pivot follows these simple guidelines to bring you the best service possible:

- *We Design - our work around you achieving your goals*
- *We Bring - senior professionals at a lower cost*
- *We Stay - on time and within budget*
- *We Provide - clear, consistent, and understandable communications*
- *We Develop - comprehensive, scientifically-sound, legally-defensible environmental compliance documents, studies and reports*
- *We Deliver - simple, consistent, direct compliance and approvals.*



## Pivot's Service Philosophy

We work hard to provide simple, direct, and innovative approaches to your compliance problems. Our approach can be summed up simply:

Our smart business strategy offers our clients a depth of expertise across a broad range of services at a significantly lower cost than many larger consulting firms. We achieve this by bringing together a focused network of highly professional associate consultants, skilled in managing complex environmental permitting and planning compliance projects. Our associate team has had great success working with regulatory and permitting agencies on behalf of private organizations and public agencies throughout the Western United States. At Pivot we are intently focused on two primary things:

- *Getting your project or operation successfully and quickly approved.*
- *Keeping your costs low.*

### *Pivot's Business Model*

Pivot's team is made up of a team of highly qualified senior professionals, including; scientists, biologists, planners, engineers and others. Pivot's approach utilizes senior professionals who primarily work from home in a virtual environment. Using this approach Pivot is able to provide the skill and expertise of many key professionals without the high cost associated with "brick and mortar" buildings and other high overhead costs.

Pivot follows a leaner, more efficient business model; we are more cost-efficient and flexible than most other consulting firms. It also means your project team is "tailor made" and built from the ground up, with your project in-mind; not with our overhead costs in mind. We draw our consulting specialists from a deep stable of experienced professionals which rivals, and may exceed, many larger, more expensive firms while allowing us to charge much less for the services you need. We bring in project staff specifically needed for the task at-hand, and only for that task. You benefit in that each project is only charged for staff that are actually working on the project at hand, and only when they are working on project tasks. And, unlike most consulting firms today, Pivot does not "stack" our overhead costs with non-project personnel. Much of the overhead rate charged by most traditional consulting firms goes to pay for all the benefits of staff who don't even work on your project.



### *Promise to Our Clients*

Pivots approach has been specifically designed to provide top notch environmental, ecological & archaeological consulting services for less cost than most of our competitors.

*Open, direct and honest communications:* We will provide open, direct and responsive communications to better understand and refine your project goals, and also to eliminate misunderstandings in longer term plans.

*Your trusted advisor:* We take our commitment to your success very seriously – It is why we exist. To ensure that you and your project have the best possible chance of success we ensure that the right professional staff is available for your questions, even if it's not related directly to the project. If you have a question or need assistance we will do our best to provide it.

*Flexible scheduling:* We will develop and communicate project strategies/scopes of work, and schedules, in conjunction with your project team to ensure there are no "surprises" later in the project.

*Responsiveness:* We will provide direct, consistent and frequent communications by telephone, in person and through clear, easy-to-read reports so you have the necessary details and information to understand the issues, stay informed, and to make timely decisions.

*Accurate Budget/Invoice Management:* We will be responsible for ensuring that the project and project elements remain on-time and within budget. Our invoices are understandable and our charges, reasonable.

*Project Oversight:* We will assign tasks and responsibilities to appropriately qualified personnel at the onset of a task, and ensure that our staff is engaged with your project through completion.

*Quality Assurance and Control:* We use integrated and iterative QA/QC process that ensures each step of your project or task is reviewed and completed with careful attention to professional competence. This process ensures that your project goals are accomplished; and that the oversight agency meets its regulatory objectives.

## Pivot Services Overview

Pivot's scientists, engineers and technical professionals provide a wide range of services in support of key tasks under most major permitting or regulatory compliance projects. Our menu of expertise has been designed to provide as many critical services as necessary to complete most compliance projects.

### Environmental Plans and Permit Services

- *NEPA EA / EIS*
- *SEPA (CEQA) EA/ EIR*
- *Baseline Technical Studies*
- *Plans of Development / Operations*
- *Reclamation Plans and Permits*
- *Environmental Investigations*
- *Stormwater Plans and Permits*

### Biological and Ecological Studies and Survey Services

- *Wildlife Surveys*
- *Vegetation Studies and Ecology*

### Construction and Biological Monitoring Services

- Pre & Post Construction Clearance Surveys
- Construction Monitoring

### Archaeological and Cultural Resource Management Services

### Mine Planning and Engineering Services

### GIS Mapping and Analysis

- Drone and Aerial Surveys and Mapping

### *Environmental Plans and Permit Services*

Pivot's associate scientists and technical experts have significant experience and knowledge with the following Nevada and Federal agencies covering many environmental laws including federal, state and local policies guiding the management of Nevada's resources.

- *Federal Agency - BLM, USFS, USFWS, DOD, BIA*
- *NEPA – EA & EIS Plans*
- *Baseline Technical Surveys*
- *Reclamation Plans and Permits*
- *Plans of Operations (PoO) & Amendments*
- *State Agency - Departments of Environmental Protection*
- *Water Pollution Control Permits – Major and Minor Modifications*
- *Engineering Design Change (EDC)*
- *Operations Plans – Development, Modifications, Revisions*
- *Reclamation Plans and Permits*
- *Stormwater Plans and Permits (SWPPP)*
- *Spill Prevention Plans (SPCC) & Clearances*
- *Spill Incident Investigations, Reporting and Closure Certs*
- *Environmental Site Investigations*
- *Due Diligence – Phase I and Phase II Characterizations*
- *Environmental Constraints Analyses / Feasibility Studies*
- *Environmental Training for Staff*





### *Biological and Ecological Studies and Survey Services*

Pivot's biological and ecological scientists and specialists offer a full suite of natural resources capabilities to support your environmental decision-making and stewardship of land and water resources including:

- *Habitat Assessments and Inventories*
- *Wildlife, Biological and Botanical Surveys*
- *Aquatic Habitat Assessments and Surveys*
- *Wetland Delineations*
- *Conservation & Mitigation Planning*
- *Ecosystem Restoration Planning*
- *GIS Modeling, Mapping and Analysis*
- *Natural Resources Management Planning*



### *Wildlife, Biological, Botanical and Special-Status Species Surveys*

Our work supports CEQA and NEPA documents, regulatory compliance efforts, and natural resources management assignments. We are experts in leading projects where protection, enhancement, management, and/or restoration of sensitive habitats or natural functions and processes are the primary objectives.

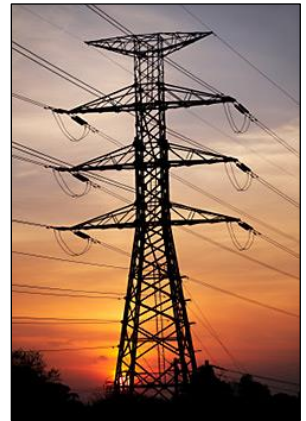
- *Certified Arborist Surveys: State and County Ordinances*
- *Sagegrouse, Migratory Bird (MBTA), Pygmy Rabbit*
- *Sage / Juniper Ecosystem and Invasives Evaluation*
- *Vegetation / Ecology Surveys*
- *Pre-Construction Nest and Raptor Surveys*
- *California – Red Legged Frog, Tiger Salamander Surveys*
- *Vernal Pool Surveys (include Fairy Shrimp and plants)*
- *Habitat Evaluations*
- *Wetland & Habitat Delineations*
- *Soil Surveys and Mapping*
- *Owl, Hawk - Habitat Assessments and Surveys*



### *Construction and Biological Monitoring and Clearance Services*

Pivot's biological and construction specialists and scientists offer a wide range of critical services necessary to ensure your linear construction project or site specific construction project stays on track. Our specialists are able to coordinate with any State or Federal oversight agency, review compliance requirements, develop a sensible measurable compliance plan, then ensure compliance and compliance reports are done completely and on-time.

- *Environmental Compliance for Linear and Site Specific Construction Projects*
- *Biological Monitoring of small sites up to large interstate projects*
- *Environmental Inspections*
- *Environmental Program Development*
- *Job Site Environmental Staff Training*
- *Coordination with Public Oversight Agencies*
- *Routine and Special Incident Reporting*
- *Mitigation and Reclamation Programs and Monitoring*
- *Stormwater Plans and Plan Compliance*
- *Spill Control Plans and Incident Reporting*
- *Cleanup Investigation and Certification Sampling*
- *Habitat Assessments and Inventories*
- *Wildlife, Biological and Botanical Surveys*
- *Aquatic Habitat Assessments and Surveys*
- *Wetland / Habitat Delineations*
- *Aerial Drone Surveying / GIS Mapping*



### *Archaeological and Cultural Resource Management Services*

Pivot's archaeologists offer a full suite of cultural resource management services. From Section 106 (NHPA) to NEPA to Site Monitoring, we can provide any service to fulfill your permitting requirements. Pivot's archaeologists are Registered Professional Archaeologists (RPA) and are at a minimum permitted in Nevada and California for resources on Bureau of Land Management and U.S. Forest Service land. All of our senior field personnel hold at least a Master's degree in archaeology or a related field and have extensive experience in the area.

- *NHPA Section 106 and Section 110 Compliance,*
- *Class I Literature Searches, Class II Site Testing,*
- *Class III Cultural Resources Inventories,*
- *Contract Proposals and Negotiations,*
- *FCC Form 620/621 Compliance (Cell towers and similar),*
- *NEPA Compliance, CEQA Compliance,*
- *Construction Monitoring,*
- *Feasibility Studies,*
- *Historic Context Preparation,*
- *Site Record Digitization,*
- *Digital Form Creation and Implementation.*



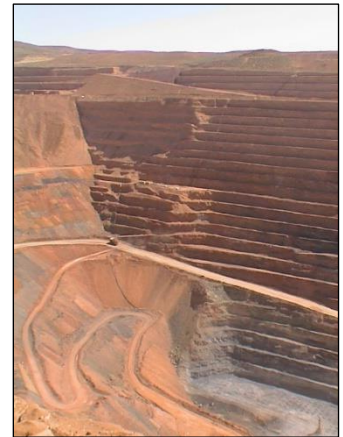
### *Cultural Resources Inventories (Section 106)*

At Pivot, we pride ourselves in giving our customers exactly what they need. When it comes to Class III Inventories, for example, we recommend an extensive literature search and site visit prior to a full inventory contract. Our clients might decide to alter their focus if extensive cultural resources will be found on a property. Doing a literature search as a separate contract from the Class III Inventory allows the client to easily switch gears on a project without being locked down to a full survey contract.

### *Mine Planning, Permitting and Engineering Services*

Pivot's Mine Planning and Engineering services allow our clients to comprehensively develop mine design and development plans which provide more opportunities to identify key optimization points. This allows our clients to realize a simpler path to better financial performance. Pivot communicates effectively, and works with our clients technical teams to develop an iterative, team-based process. Pivot develops useful and practical options to develop your project.

- *Mine Planning, Design & Engineering*
- *Reclamation Planning, Design and Permit Assistance*
- *Mine Feasibility Studies & Constraints Analysis*
- *Surface Mine Engineering and Technical Oversight*
- *Geologic Modeling, Cost Modeling*
- *Strategic Planning, Scheduling*
- *Cost Analysis, Continuous Process Improvement*
- *Resource Analysis and Feasibility Studies*
- *Development and Analysis of 43-101 Technical Reports*
- *Mine Permit Assistance and Agency Negotiations*
- *Bureau of Land Management (BLM)*
- *Plans of Operations*
- *Plan of Operations Amendments - Minor and Major*
- *Reclamation Plans and Permits*
- *Cost Modeling for Bonding or Planning (SRCE Models)*
- *Nevada – Bureau of Mining Regulation & Reclamation (BMRR)*
- *Water Pollution Control Permit (WPCP)*
- *WPC Permit - Minor and Major Modifications*
- *WPC Permit - Engineering Design Change (EDC)*

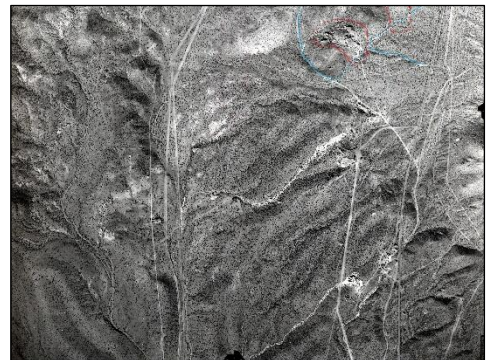
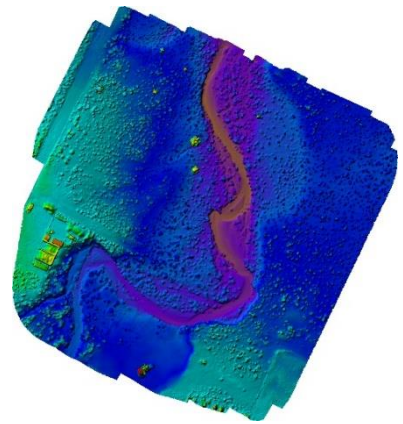




*GIS Mapping and Analysis, Drone and Aerial Survey Services*

Pivot provides a range of GIS mapping services both by aerial drone and by traditional land-based methods. Our GIS mapping services provide our clients with critical tools necessary for appropriate resource management, habitat delineation and evidence of permit compliance.

- *GIS Consulting Services*
- *Aerial Drone Mapping Services*
- *Natural Resource / Habitat Mapping*
- *Job Site / Mine / Facility Mapping and Operations Planning*
- *Reclamation Plan Development and Compliance Reviews*
- *Aerial Inspections and Monitoring*
- *Cartographic Design and Map Products*
- *Archaeological Consulting Services*
- *Archaeological Field Work*
- *GPS Data Collection*
- *Aerial Real Estate Video and Photography*
- *Vegetation / Terrain Mapping*



## Pivot People

At Pivot we provide our clients with top notch senior professionals at a lower cost than most of our competitors. Our people bring a high level of experience and integrity to every project.

### Scott Ackert

*Principal Environmental Scientist, Pivot Owner, 23+ years of experience*

Scott Ackert is a principal-level environmental scientist with over 23 years of experience specializing in environmental permitting and planning for private and public projects and programs. Mr. Ackert has extensive experience providing a broad array of assistance with federal and state permits and regulatory compliance solutions for mining, infrastructure, natural resource management and energy development and operations. Scott has senior level environmental planning and permitting experience developing and managing compliance requirements for Nevada mines including: Mine Operations Plans/Plans of Operations (PoO), Water Pollution Control Permits (WPC), Storm-water Plans and Permits (SWPPP), Spill Prevention Control Plans (SPCC), Petroleum Contaminated Soils Plans (PCS), and Mine Reclamation, Re-vegetation Plans and Permits. Scott has senior level experience on over 30 NEPA projects throughout the western USA and an extensive background of experience managing federal program development and infrastructure initiatives including NEPA assessments under BLM, USFS, BIA, and DOD jurisdictions.

Mr. Ackert is a veteran of the US Navy and the US Army and earned his Bachelor's Degree in Environmental Science and Planning (ENSP) from Sonoma State University.

- *Environmental Planning and Permitting Programs*
- *NEPA EA/EIS Projects for - BIA / USFS / USFWS / DoD*
- *Nevada, NDEP/BMRR Mine Permitting Programs*
- *Mining / Facility - Water Pollution Control Permits*
- *Reclamation Plans and Permits*
- *Stormwater Permitting Programs Development (SWPPP)*
- *Spill Prevention and Pollution Control Plans (SPCC)*
- *Construction Site – Comprehensive Permitting Programs*
- *National Environmental Policy Act (NEPA) Support*
- *Reclamation Plans, Environmental Planning,*
- *Feasibility Studies and Constraints Analyses*
- *Phase I and II – Due Diligence Investigations*
- *Land Use and Community Plans*



**Jon Silva**

*Principal Biologist, Pivot Owner, 23+ years of experience*

Mr. Silva is a principal-level biologist with over twenty years of experience in floral/faunal surveys and natural resource management and is an owner of Pivot Environmental. He has worked with both private companies and public agencies to implement environmental requirements on large-scale utility infrastructure construction projects to small scale landowner resource consulting. Jon has familiarity in working with such resources as fisheries and wetlands and has extensive experience in surveying for raptors, noxious weeds and sensitive/listed species. Jon earned his Bachelor's Degree in Biology from Humboldt State University in Arcata, California.

- *Flora and faunal surveys, monitoring and buffer zone establishment*
- *Wildlife capture, handling and relocating*
- *SWPPP inspection, erosion control and restoration*
- *CEQA/NEPA, CWA and ESA compliance*
- *Water quality testing and monitoring*
- *Document control and reporting*
- *Project managing, budgeting and recruiting*
- *Contract proposals and negotiations*



**Chris Webster:**

*Principal Archaeologist, Cultural Resource Management, Pivot Owner*

Chris has diverse experience in 19 different states and in every region of the continental United States. Chris has worked in all phases of contract archaeology from literature searches and Class 1 surveys to full-scale excavations and lab work. Mr. Webster is well versed in meeting every need of a client. Chris specializes in providing NEPA compliance, Section 106 review and all phases of archaeological research and monitoring activities.



Chris has done important pioneering work in the field of digital field archaeology with all phases of his operation completely digital. This approach saves client time and money on projects of all sizes. In 2015 Chris completed 45,000 acres of survey and site recording for the U.S. Navy in just eight months. Site records and much of the draft reports were complete within a week of the completion of the fieldwork due to digital field methodologies. Chris received his Bachelor's Degree in Anthropology from the University of Georgia, and his Master's Degree in Anthropology from the University of North Dakota. Chris is a veteran of the United States Navy.

Pivot offers a full complement of CRM and Archaeological services and capabilities to our clients:

- *Nevada BLM Permitted as Principal Investigator*
- *California BLM Permitted as Principal Investigator*
- *Registered Professional Archaeologist*
- *NHPA Section 106 and Section 110 Compliance*
- *Class III Cultural Resource Inventories*
- *Class I Literature Searches*
- *FCC Form 620/621 Compliance*
- *NEPA Compliance*
- *Construction Monitoring*
- *Feasibility Studies*
- *Historic Context Preparation*
- *Site Record Digitization*





**Marchel Munnecke**

*Senior Botanist, Vegetation Ecologist, Soil Scientist*

Marchel Munnecke is an experienced senior biologist and botanist and soil scientist. Marchel is a vegetation ecologist and soil scientist for Pyramid Botanical Consultants where she collaborates with Dr. Alice Miller. For the last 3 years, Marchel has been working primarily in the capacity of a soil scientist involved with NRCS soil surveys and land capability permitting for Tahoe Regional Planning Agency (TRPA). Marchel is also experienced in assembling and training, and managing seasonal field crews. In that capacity Marchel develops and oversees field operations QAQC processes and for data analysis and final reports. Marchel also provides valuable senior field services including crew development and oversight, along with associated tasks such as; digging and logging soil pits, collecting plant species cover and production data, forest stand data, and other field data. Marchel's field experience also includes developing characteristics of depth, texture etc., and plant communities are statistically analyzed to determine the primary drivers of the biological system. Past disturbance and natural ecological processes such as forest management practices, fire regimes, forest pathogens, and natural succession are all described, using a state and transition model



**Menemsha Zotstein, M.S.**

*Biologist, Field Biologist*

Menemsha Zotstein is an associate Biologist with both B.S. and M.S. degree's in biology, from UCLA and California State University of Long Beach, respectively, with a primary focus on ecological studies. Menemsha has designed her own field studies and participated in many field projects in diverse and rugged environments such as dense rainforests, wetlands, and deserts. Menemsha has worked mainly with herpetological species but has also participated in studies of numerous other mammal and avian species. Menemsha also assisted with Pivot's recently concluded, highly successful Goshawk Survey in the Plumas National Forest in northern California.



### Michael Scaffidi

*Biologist, Construction Monitor, Environmental Inspector*

Michael Scaffidi is an experienced environmental compliance specialist, environmental inspector and construction monitor. Michael has been involved in numerous large-scale construction projects ensuring on-the-ground environmental compliance across an array of environmental conditions. In these roles he has been responsible for developing and conducting pre-construction nesting bird and special-status species surveys, preparing associated reports for regulatory and resource agencies, and creating the Worker Environmental Awareness Program (WEAP) trainings. In addition to these roles Michael also develops and conducts weekly construction meetings, illustrating and explaining environmental constraints, special conditions and the scheduling of Environmental Inspectors and biologists necessary to conduct critical monitoring and compliance inspections. Michael also serves to discuss and enhance "problem-solving" with construction crews to avoid impacts to environmental resources, and otherwise ensuring compliance with the project's permit terms and conditions. Michael received a Bachelor's degree in Environmental Biology and Management from UC Davis.



### Michael Finnell

*Biologist, Construction and Biological Monitor*

Michael Finnell is a biologist with experience in biological surveys and environmental compliance. He has worked both in the private and government sectors specifically working with the flora and fauna in the Sacramento-San Joaquin and Sierra Nevada ecoregions. Michael has experience working with fisheries and wetlands and has strong experience in surveying for raptors, pollinators and associated flora, aquatic macrophytes, and sensitive/listed species. Michael received a Bachelor's degree in Biological Science from Sacramento State University.



**Cris Wright, P.E.**

*Associate Principal Mining Engineer*

Mr. Wright is a principal-level Mining Engineer with over 20 years of experience in engineering management, mine technical reviews, economic analysis, OPEX/CAPEX, resource estimation, geologic modeling, mine design, mine planning, continuous process improvement, scheduling, and reclamation design for both the surface and underground mining of coal, gold, cobalt, copper, lead and zinc.



Cris uses continuous process improvement methodologies to do better engineering and management, providing increased efficiency and cost reductions. A Competent Person/Qualified Person (CP/QP) for mining as defined by the world's stock exchanges, he has assured maximum productivity and mining rates through the use of advanced mining methods, procedures, software, and equipment in Texas, Louisiana, New Mexico, Montana, Ohio, Kentucky, China, Germany, Mexico and Venezuela. Cris earned his Bachelor of Science degree in Mining Engineering from the Colorado School of Mines with an emphasis on Mineral Economics and International Public Relations, China Specialty.

- *Mine Planning and Design*
- *Reclamation Planning, Design and Engineering*
- *Mine Feasibility Studies & Constraints Analysis*
- *Surface Mine Engineering and Technical Oversight*
- *Geologic Modeling, Cost Modeling*
- *Strategic Planning, Scheduling*
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- *Nevada – Bureau of Mining Regulation & Reclamation (BMRR)*
- *Water Pollution Control Permit (WPCP)*



**David McIntyre, M.S.**

*Associate Principal Environmental Scientist*

David McIntyre is a principal-level environmental scientist, and Owner of McIntyre Environmental. David is a seasoned environmental scientist and project manager with 21 years of private-sector and DoD experience. David has facilitated collaborative planning efforts for a variety of high-profile projects, including EAs and EISs requiring evaluation under NEPA and the California Environmental Quality Act (CEQA) and impact assessments for projects proposed for location on federally owned land. Mr. McIntyre manages projects involving the development of EIS documents, completion of environmental surveys and planning studies, environmental impact avoidance/mitigation, and regulatory compliance evaluation. As part of his projects, he provides consistent, effective liaison with public clients and agencies, including USFWS; the NOAA National Marine Fisheries Service; the United States Army Corps of Engineers (USACE); the United States Navy and Marine Corps; the Veteran's Administration; state water quality, transportation, coastal zone management, biological, and historical preservation offices; and county and city agencies.



Mr. McIntyre is a veteran; having served as an officer in the US Marine corps with a Bachelor's of Science from the U.S. Naval Academy and a Masters degree in Geography from San Diego State University.



**Devin Blom**

*GIS Technician, Archaeologist, Aerial Drone Surveyor*

Devin Blom is an archaeologist and Geographic Information Systems (GIS) specialist. Devin specializes in mapping aerial surveys, digital recording and GIS based cartographic products. Mr. Blom has experience working in the federal sector with archaeology and GIS, having served in the US Forest Service from 2009 to 2014. Mr. Blom received his Bachelor's degree from the University of Nevada, Reno in anthropology and archaeology in 2014. Since 2014 Mr. Blom has been working in the private sector as an archaeologist and GIS specialist. Mr. Blom's provides GIS mapping and aerial drone survey services to Pivot and our clients over a variety of project areas including: archaeology, hydrology, mining, botanical and biological resource mapping.



Devin's specific qualifications and expertise include:

- *GIS based natural resource mapping and cartographic products,*
- *GIS data management and editing,*
- *GIS data analysis including LIDAR data processing and analysis,*
- *Archaeological survey, GPS recording, monitoring and excavation.*



## Pivot Experience

The following pages provide an overview of our experience. These highlighted projects involve the management and oversight of many technical areas, such as: National Environmental Policy Act (NEPA) studies, NDEP Water Pollution Control Permits, water resource projects, natural resource planning, biological experience and others.

*\* indicates work done by partners or by staff while with other firms*

### *Infrastructure & Natural Resource Project Experience*

#### **Sagebrush Ecosystem Management (SEM) Program**

*BLM Programmatic NEPA Environmental Assessment (EA) - Battle Mountain District (BMD), NV.*

Pivot is currently teaming with GeomorphIS LLC and McIntyre Environmental to help the BMD develop a district-wide comprehensive Programmatic NEPA Environmental Assessment (EA). The EA assesses a proposed plan to provide meaningful and proactive ways to better manage the sagebrush ecosystem throughout the BMD. The purpose of the SEM project is primarily to 1.) Decrease the severity and intensity of future wildland fires in the BMD by reducing hazardous fuels (ground and aerial) and provide for a safer fire suppression environment, and 2.) Sustain and improve sagebrush plant communities.

#### **Northern Goshawk Survey – USFS Plumas National Forest**

*US Forest Service - Beckwourth Ranger District - Portola, CA.*

Pivot Biologist Jon Silva (Project Director) and Environmental Scientist Scott Ackert and other Pivot associate biologists, have recently finished the second and last phase of a two-Year contract under the US Forest Service (USFS) to develop a comprehensive Northern Goshawk Survey in the Plumas National Forest (PNF) Beckwourth Ranger District. The PNF is located in northeastern California, roughly 25 miles southeast of Quincy, California, and is comprised of 1,171,183 acres. The Survey Area itself covers roughly 15,000 acres spread across certain older growth timber stands within the PNF. Certain areas which clearly represent unsuitable habitat or nesting areas are generally to be eliminated from the Survey.

### O'Neil PPA Vegetation Treatment – BLM NEPA Environmental Assessment

*BLM NEPA EA - Elko, Nevada District*

In coordination with GeomorphIS LLC, and other partners Pivot is working for the Bureau of Land Management (BLM), Elko, Nevada on the O'Neil Project Planning Area Vegetation Treatment Projects (O'Neil PPA). The O'Neil PPA Vegetation Treatments Project is being developed to assess the direct, indirect and cumulative impacts of a habitat improvement project that includes various vegetative treatments. The EA impact analysis will focus on potential impacts that may result from vegetative treatments conducted by the BLM and approved contractors within the approximately 2.2 million acre project boundary. Approximately 300,000 acres of treatment have been identified to be analyzed within the project boundary. The EA addresses environmental impacts from water resources; air quality; vegetation resources including noxious weeds; wildlife (including migratory birds); special status species (T&E); range resources; land use and access; aesthetics (visual); cultural resources; geology, minerals; soils; recreation; hazardous materials; Native American religious concerns and traditional values; environmental justice, and others as determined through internal and external scoping of the project.

### "One Nevada" - 500kV Transmission Line ROW Project\*

*BLM, USFS NEPA EA - Biological Assessments, Inter-agency Consultation, Transportation/Access Design and Impacts Analysis, Public Outreach Processes - Ely, NV.*

While working with another consulting firm, staff member performed senior level project scientist duties. This NV Energy project would develop a company owned and operated energy transmission line and associated substation facilities located in White Pine, Nye, Lincoln, and Clark counties, Nevada. The project would include: a new 500 kV substation, and transmission and fiber optic line from the proposed Robinson Summit Substation to the existing Harry Allen Substation, (approximately 236 miles), a loop-in of the existing Falcon-Gonder 345 kV transmission line, and associated access roads into and along the transmission line. The Environmental Impact Statement (EIS) was prepared in response to an amended SF 299 application for the One Nevada 500 kV Transmission Line (ON Line Transmission Project) submitted by NV Energy.

### Utah-Nevada (UNEV) - Interstate Pipeline Transmission ROW Project, (BLM) \*

*BLM NEPA - Environmental Impact Statement (EIS), Biological Assessments, Protocol Surveys, and Public Outreach Processes - Salt Lake City, UT.*

As a part of a large project team; staff member assisted in the preparation of an Environmental Impact Statement (EIS) for a 400-mile interstate pipeline as a third-party contractor for the Bureau of Land Management. The project, proposed by Holly Energy Corporation, consists of a proposed 400-mile, 12-inch, buried, common carrier pipeline for refined petroleum products that



would extend from refineries in North Salt Lake City, Nevada to North Las Vegas, Nevada. Project team worked closely with the Bureau of Land Management to evaluate potential impacts that the construction and operation of the pipeline, pump stations, terminals, and related facilities would have on human, natural, and cultural resources along the length of the proposed right-of-way corridor.

#### Transmission Line ROW Project \*

*BLM NEPA EA, Biological Studies, Visual Impacts Analysis - Iron County, UT.*

The 3 Peaks NEPA Environmental Assessment (EA) was prepared to disclose and analyze the environmental consequences of a proposal by the PacifiCorp Company to construct a 138 kV overhead transmission line within a requested right-of-way (ROW) extending from the planned Three Peaks Substation to a point near the Western Electrochemical Company (WECCO) facility, northwest of Cedar City, Iron County, Nevada. The new ROW was requested for 30 years. The Federal Action was to respond to a ROW application submitted by PacifiCorp by making a decision on whether or not the Bureau of Land Management (BLM) should grant a Federal Land Policy and Management Act (FLPMA) Title V ROW as described under the Proposed Action. The EA was designed to assist the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts (defined under 40 CFR 1508.27) could result from the Proposed Action.

#### Dixie National Forest - Oil & Gas Leasing Project \*

*USFS NEPA EIS - Ecological Baseline Studies - St. George, UT.*

As part of a large project team; staff member assisted in the preparation of an Environmental Impact Statement (EIS) for the Dixie National Forest (DNF) to document a forest-wide leasing analysis and to disclose the environmental and human effects of oil and gas leasing on lands administered by the DNF. The DNF is the largest national forest in Nevada, covering approximately 1,710,677 acres. The EIS analysis area includes all National Forest System lands within the entire DNF with the exception of lands with a non-federal mineral estate and designated wilderness areas. As part of the project, project team prepared all technical reports for those resources that could be affected by oil and gas leasing.



**Mineral Mountain - Communications Facility Development Project \***

*BLM NEPA EA - Biological Assessments, Cultural Survey - Milford, UT.*

The Project Proponent Rocky Mountain Power seeks to develop upgrades to its Mineral Mountain Communications facility. The NEPA Environmental Assessment reviewed project activities through the use of the BLM's Interdisciplinary Team Checklist, associated technical studies and public input on critical issues including: Range and Fire Management, Air studies related to fugitive emission control plans, Biological assessments related to possible T&E Species, Migratory Bird analysis, and Cultural Resource survey.

**ASH Springs Project - BLM Recreation Area Management Plan (RAMP / NEPA EA) \***

*BLM NEPA EA - Biological Assessment (BA), Inter-agency Consultation, Transportation/Access Design and Impacts Analysis, Public Outreach Processes - Caliente, NV.*

The Caliente, Nevada, Field Office of the Bureau of Land Management (BLM), as the Lead Agency, required the development of a new Recreation Area Management Plan (RAMP) and NEPA Environmental Assessment to describe and assess the impacts from a proposed BLM project to develop and expand the recreation site. The proposed project would expand the site, and increase recreational opportunities for users while preserving habitat functionality for numerous endangered local, endemic fish species. Critical to the project would be the maintenance of the natural and ecological values of the site and its surrounding resources.

**Novato Creek - Flood Control Project**

*CEQA—Mitigated Negative Declaration, Biological Assessment, Wetland Delineation, Storm-water Pollution Control Plan - Marin County, Novato, CA.*

This effort evaluated the environmental impacts related to the removal, transportation and deposition of mud and silt to restore the flood control capacity of several major streams within and around the City of Novato California. Key impact issues involved trucking and transportation of dredged spoils, sediment discharges, noise, and air in the project site and at the transportation corridor adjacent to Bel Marin Keys and at the Hamilton Wetlands Reclamation Project site where final deposition will be made. Other important issues include the air emissions control permits, biological impacts associated with the projects proposed placing of sites related to mixing and piping, trucking and transportation, water quality, and fisheries impacts.

**Bodega Bay - FEMA Emergency Breakwater and Beach Erosion Repair Project**

*FEMA, CEQA—Initial Study/Mitigated Negative Declaration, Biological Assessment, Coastal Permitting Processes, Fugitive Dust Control Plan - Sonoma County, CA.*

Severe storms during the winter of 2005-2006 damaged significant portions of Beach protection infrastructure in and around Bodega Bay, California. Damaged structures and features included, beach-armoring Rip-Rap, backfill areas, sea-wall structures, beaches, boat ramps and sidewalks. Sonoma County Regional Parks, funded by emergency FEMA program developed a project to restore these significant sections of beach breakwater and rip-rap structures. Portions of the Porto Bodega Harbor sea-wall were also repaired. Doran Beach State Park required restoration activities at the boat ramp and associated beaches. Significant analysis included biological studies and surveys of Eel Grass in the project site areas. Other project duties include Public Outreach and presentation of the Project at the Sonoma County Environmental Resource Committee (ERC) as the representative of the County as Lead Agency.

**Redwood Road\* - FEMA Emergency Road Repair Project, NEPA Environmental Assessment**

*FEMA, Flood Control, NEPA EA - Biological Assessment, Mitigation and Monitoring Plan, Wetland Delineation - Napa County, CA.*

Project managed an extensive NEPA Environmental Assessment (EA) of a proposed effort to repair a major roadbed failure of the Redwood Road in the western hills of Napa County. Napa County's Public Works department utilized FEMA funding under grants for emergency infrastructure repairs to develop the repairs. The project repaired a 100-foot roadbed failure on Redwood Road which occurred adjacent to Redwood Creek. Analysis included biological assessments (BA) to determine the potential for impacts to Northern Spotted Owl, Bald Eagle and Coho Salmon. Other impacts included water quality, noise and air quality (during construction).

**Preservation Ranch\* - Vineyard / Timber Conversion and Development Project**

*CEQA—Technical Studies, Permitting Processes - Annapolis, CA.*

The Preservation Ranch project was a 20,000-acre legacy-project to develop timber production on approximately 6,000 acres with 2,000 acres to be placed into vineyard conversion, and several thousand acres to be inventoried and assessed for inclusion into Oak and Redwood conservation status. Assisted with extensive permitting efforts, which included hundreds of miles of roads and hundreds of stream crossings. Assisted with the development of new management infrastructure for this precedent setting project, including database and website development. Other responsibilities included Quality Assurance Sampling Plans (QAPP), reviews of technical baseline studies and assistance with air emissions control plan, biological studies; Raptor survey, and Owl surveys.

**Mountaineer Coal Mine - Carbon Capture Demonstration***NEPA EIS Technical Review - Mason Co, W. VA.*

Mr. Ackert provided senior QA review of project NEPA and study documents. The project was designed to capture and safely store underground up to 1.5 million metric tons of CO<sub>2</sub> per year from plant emissions. The captured CO<sub>2</sub> would be compressed and conveyed via pipeline to injection wells for geologic storage in deep saline formations.

*Mining Experience***Black Rock Canyon Mine, Nevada Rae Gold Inc. - Mine Permit Development & Management Program - Crescent Valley, NV.**

Mr. Ackert developed a full program of Federal (BLM) and State (NV) environmental permit compliance from startup, to development and then to operations phase plans and permits. The first phase was developed and designed to incorporate permitting into the new Plan of Operations (PoA) and the Reclamation Plan. This also updated and brought current the mine's Nevada Water Pollution Control Permit (WPC) and Reclamation Permit. Additional to this numerous Major and Minor Modifications were required to fully integrate Company objectives with the new Amended Plan of Operations (PoA) and Reclamation Plan. Also developed were the Stormwater Management Plan (SWPPP) and Annual Permit, and the Spill Prevention Plan (SPCC). Subsequent phases have developed and made current several other permits including the Clean Air Act (Title II Air Permits), Clean Water Act (Water Resource Permits), BLM Right of Way Permits, Hazardous Waste Permits, and local land use permits.

**Marigold Gold Mine - Environmental Program Audit and Constraints Analysis***Valmy, NV.*

Mr. Ackert performed an overview analysis of Marigold Mine's Environmental Program. This program review developed a comprehensive report detailing findings and potential problems and risks associated with the potential Mine purchase. This report was utilized by Aurico Gold Inc. of Toronto, Ontario to evaluate the viability of Marigold Mine as a potential acquisition.

**Goldstrike TCM Mine - Management of Engineering Design Change (EDC) Processes for Water Pollution Control Permit\* - Elko, NV.**

Mr. Ackert assisted the Barrick Mining Company by designing a new water pollution permit administrative record and documentation process for 21 separate Engineering Design Change (EDC) processes running simultaneously. In addition to developing a new administrative record process Mr. Ackert developed a task and process tracking system designed to run in "real-time" based on an extra-net workspace allowing diverse project staff at Barrick, Golder and other firms to access and work on documents across multiple task platforms.

**Gold Mine - Environmental Permitting and Constraints Analyses of a Planned Mine Pit Expansion Battle Mountain, NV.**

This northern Nevada gold mine determined that a minable ore reserve of approximately 20 mt exists in a new area of mine property located adjacent to a former active Pit. Plans to develop the pit expansion were proposed for two phases, first by development of Phase 1 entirely on private fee land, then by expansion of Phase 2 onto public (BLM) land. Mr. Ackert provided overview and constraints analysis of federal permitting and environmental regulatory compliance requirements and liabilities with a compliance plan and program necessary to move the project forward.

**Gold Mine - Proposed Heap Leach Facility Overview and Analysis Sundance, WY.**

This project developed a technical analysis of permitting scenarios for the potential development of a stream diversion around a proposed valley-fill Heap Leach Facility (HLF) at a confidential Mining operation near Sundance, Wyoming. Analysis focused on the study of projects with similar characteristics and features, especially as they had the potential to relate to the development of the Clean Water Act (Section) 404 permitting process. This study was developed to help identify possible alternatives and mitigation strategies likely to be critical to the development of the design, and a strategy for successful Section 404 permitting.

**Gold Mine - Startup and Operations Permitting of a Large-scale Underground Lode Mine Searchlight, NV.**

Mr. Ackert developed full suite of startup and operating plans and permits for a large-scale underground startup mine in Searchlight, NV. Plans and permits included: Operations and Reclamation Plan (Ops Plan) and Permit application with a Standardized Reclamation Cost Estimate model (SRCE), Air Operating Permit with a Dust Control Plan, Stormwater Pollution Prevention Plan and NPDES Permit for Mine Operations.

**Thompson Creek Mine – Mine Expansion Permitting Project \****(BLM) NEPA EIS and Baseline Environmental Studies - Challis, ID.*

While working with another firm, staff member performed senior environmental scientist project support activities. The Project Proponent (Thompson Creek Mine Company) developed a project to expand current operations at the Thompson Creek Mine (Mine) near Challis, Idaho. The Mine is the third largest primary molybdenum mine in the world and would expand operations through the use of federal land exchanges with the Bureau of Land Management (BLM) and the US Forest Service (USFS). The Thompson Creek Mine Proposed Amended Plan of Operations and Land Exchange Project (Project) proposes to expand current mining operations of a combined 660 acres of private land and 850 acres of public land administered by the BLM's Challis Field Office and USFS Challis Yankee Fork Ranger District. Project activities included the analysis and preparation of CAA, Title V facility permitting, biological assessments, wetland delineations, wildlife surveys, vegetation surveys and NEPA EIS preparation.

**Dairy Syncline Mine - Phosphate Mine Development Project (USFS) \****(USFS) NEPA EIS – EIS and Baseline Technical Studies - Caribou National Forest, ID.*

The Project Proponent (Simplot Mining Corporation) proposes a project to develop new federal mining leases on its Dairy Syncline lease area in the Caribou National Forest in Southeast Idaho. Project team supported activities included technical studies assessing Transportation and Access resources, CNF Recreation Resource Technical Reports as well as on-site Timber Surveys. Timber survey's gathered representative data from timber plots including tree ring/age data, species distribution, and cover growth and species numbers. Project Lead Agency and responsible agencies are the USDA USFS and Bureau of Land Management (BLM), respectively.

## *Other Project Experience*

### **Land Capability Assessment, Tahoe Regional Planning Agency (TRPA)\***

#### *South Lake Tahoe, CA.*

Pyramid Botanical Consultants, Senior Environmental Scientist, Marchel Munnecke provides on-call soil and wetland science services for TRPA Land Capability applications. Projects include, Soil Hydrology investigations, Stream Environment Zones (SEZ) verifications and delineations, Land Capability Challenges, IPES assessments, and Determination of Allowable Coverage. Tasks include examining soil pits for seasonal high groundwater, soil descriptions, soil classification, and assessment of stream environment zones based on soil and vegetation indicators. These assessments determine the depth, coverage, or placement of development projects in the Lake Tahoe Basin.

### **Develop Threshold Reports for Uncommon Plant Communities and Sensitive Species, TRPA\***

#### *South Lake Tahoe, CA.*

Pyramid Botanical Consultants, Senior Environmental Scientists, Marchel Munnecke and Dr. Millar, analyzed and reviewed existing data to assess the Status and Trends the Uncommon Plant Communities and Sensitive Species thresholds as part of the TRPA 2016 Threshold Report. Marchel was the lead for the Uncommon Community thresholds, which involved reviewing existing data and monitoring methods for the Upper Truckee Marsh, Taylor Creek, Pope Marsh, Osgood Swamp, Hell Hole, and Grass Lake communities. Dr. Millar completed the assessments of the Sensitive Species thresholds. Data was insufficient for determining Status and Trends for several thresholds, and recommendations were incorporated to improve sampling methods to detect change for the next threshold assessment.

### **Develop Lotic Ecological Site Descriptions for the Confederated Tribes of the Umatilla Indian Reservation (CTUIR)\* - Pendleton, OR.**

Pyramid Botanical Consultants, Senior Environmental Scientist, Marchel Munnecke was the project manager and primary field scientist for this soil survey and riparian ecological site update. Pyramid Botanical Consultants partnered with Pacific Watershed Associates and Terra Earth Sciences to complete this project. This contract was to identify and develop five lotic riparian ecological site descriptions on select tributaries of the Umatilla River, within the CTUIR boundary Oregon. GIS analysis divided sections of streams based on watershed size, valley type, and stream gradients. Stream cross section and stream profile measurements were taken along

representative sections. Selected cross sections included a complete soil pit and vegetation plot at each fluvial surface, such as the gravel bar, floodplain and terrace. This allowed for correlation of water table depth and flooding frequency to soil and plant community development. Final Ecological Site reports include a state-and-transition model, stream cross-section profiles for each state and phase (incised, braided, non-incised etc.). Soil characteristics and plant community composition are described for each fluvial surface, and phases show how the soil and plant community responds to hydrologic changes or other disturbances. Lists of wildlife species and culturally-significant plant species are included. Upon completion of this project, the NRCS, Umatilla County Soil Survey was officially updated with new soil map units, which provide managers with greater detail for managing riparian areas, within the CTUIR reservation.

#### Develop Ecological Site Descriptions\*, Natural Resources Conservation Service (NRCS)

*Davis, CA.*

Pyramid Botanical Consultants, Senior Environment Scientists, Marchel Munnecke and Dr. Millar developed Ecological Sites for NRCS soil survey projects from 2007 to 2015. Larger projects include the Joshua Tree National Park Soil Survey, Mojave National Preserve Soil Survey, Sequoia and Kings Canyon National Park Soil Survey, and Lassen Volcanic National Park Soil Survey. Pyramid Botanical Consultants partnered with NRCS soil scientist to identify and access survey points. Depending upon plant community type, forest, range or riparian data was collected. Pyramid Botanical Consultants created an Access database and entered plant, soil, and site data. Data was analyzed in R to assess relationships between vegetation types, soil characteristics and climatic variables. Ecological Site descriptions describe the drivers of the ecological site, describe the successional pathways of the associated plant communities, and threats to the system using a state-and-transition model approach. Pyramid Botanical Consultants has also provided training for NRCS personnel on forest, range and riparian data collection methods, and how to group vegetation types into ecological sites.

#### Tribal Casino & Golf Course Resort Development Project \*

*NEPA EA with Protocol-level Biological Surveys, Wetland Delineation, Water Quality Survey, Traffic Survey, Nighttime Light Impacts Survey, (CAA) Air Compliance Monitoring and Mitigation Plan, Permitting Process - Undisclosed, CA.*

NEPA compliant environmental assessment (EA) project to assess a tribal project to purchase and convey 600 + acres from "fee-simple" status to federal trust status. Project elements included the design and development of the Casino and golf course resort with related infrastructure. Biological analysis included several protocol level surveys, with USFWS consultation compliant with the Endangered Species Act. Traffic/Circulation studies to assess and mitigate traffic



concerns discovered during Scoping. Issues included a concern that the project would impact the local limited-service rural transportation corridors along with dust emission contributions during construction phases. Mitigations included several improvements such as the addition of a project-area traffic lane, other project mitigations included: visual impact mitigation plan, wetland mitigation plan and habitat improvements with mitigation monitoring plan prior to project approval.

#### **Tribal Casino Development Project \***

*NIGC—Environmental Evaluation (EE), NEPA Constraints Analysis  
Undisclosed, CA.*

Project to evaluate the impacts expected from a Tribal project to construct a casino on federal/tribal trust land. This project included the development of documentation consistent with NEPA and the National Indian Gaming Commission (NIGC) gaming agreement §10. The EE assessed the environmental feasibility of the project as it was expected to relate to local, off-reservation environmental and sociological impacts from the proposed project.

#### **Round Valley Tribes – Feasibility & Constraints Analysis of a Proposed Mining Operation**

*Geological Surveys, Hydrological/Geo-morphological Studies, Biological Assessments,  
Environmental Permitting and Compliance Programs for Clean Air Act Compliance,  
Clean Water Act Compliance, Endangered Species Act Compliance  
Covelo, CA.*

Project to explore and analyze the environmental, geologic, technical, federal and state regulatory and economic constraints within the context of overall feasibility of the proposed project to mine gravel and aggregates on federal trust land in Mendocino County, California. Environmental constraints were numerous and included: large areas of habitat potentially critical to threatened and endangered species (Coho salmon), the analysis of impacts to a listed "Wild & Scenic" river, and operational impacts related to noise, air quality and transportation corridors were also assessed.



**Manchester Point Arena Tribe—Community Building Expansion, Rehab Project**

*NEPA/CEQA—Environmental Assessment (FONSI)/Initial Study (IS), Mitigated Negative Declaration Point Arena, CA.*

Managed a HUD CDBG Grant project of over \$500,000 to comprehensively redesign, expand and rebuild the tribe's existing community center building. The Community Center building served the community as the tribal offices, the elder nutrition center, the health center and community meeting hall. The building was too small and inefficient for any of these purposes. The grant awarded over \$500,000 to the tribe to plan, design, engineer, environmentally evaluate, and remove physical constraints in the design, shape and size of the building. The project also included a NEPA/CEQA hybrid Environmental Assessment process which effectively allowed the Tribe to continue the project with no delays in start-up.

**Sherwood Tribe - Water Quality Assessment Program, QAPP, S&AP and 305b Report**

*Quality Assurance Project Plan (QAPP), Sampling and Analysis Plan (SAP), §305b Report Willits, CA.*

A project developed and funded under the US EPA's CWA §106 grant program, pursuant to the tribes development of a watershed-wide NPDES Sediment pollution prevention and mitigation program. The project initially required the development of a Quality Assurance Project Plan (QAPP) for the Tribe. The Tribe required a QAPP, which specified sampling methodology, locations, equipment, sampling and handling methods, chain of custody protocols, and data handling requirements.



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