



# Environmental Services

[2dotconsulting.com](http://2dotconsulting.com)



**TWO DOT**  
A Montrose Environmental Company

## Table Of Contents

<b>Section 1 – Introduction</b>	<b>2</b>
Company Overview	2
Approach To Safety	2
Services Overview	3
<b>Section 2 – Services Details</b>	<b>4</b>
Route Planning & Feasibility Studies	5
Alternatives Identification And Comparison	5
Federal Lands And Agency Experience	5
NEPA Compliance	5
FERC Requirements	5
Environmental Planning And Project Management	6
Biological Resources	6
Visual Resource Planning And Assessment	7
GIS, Drones, And Advanced Information Technologies	7
Land Use Planning	9
Reclamation	9
Stormwater & SPCC	9
Cultural Resources	10
<b>Section 3 – Clients And Projects Experience</b>	<b>11</b>
2DOT Clients	12
Relevant Project Experience	12

## Company Overview

2DOT, a Montrose Environmental Company, is an interdisciplinary environmental and engineering firm of more than 25 professionals with offices in Wyoming and Colorado.

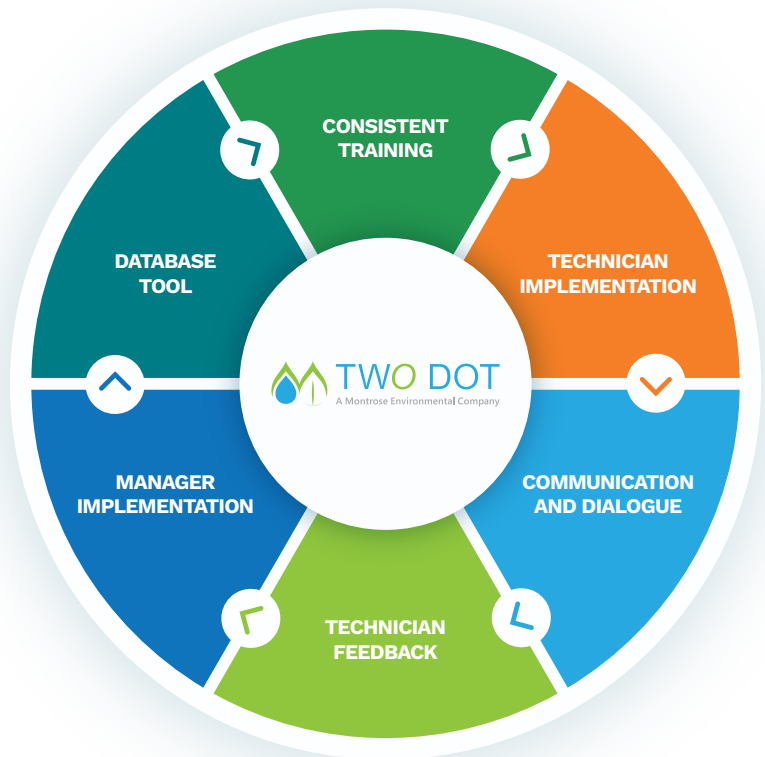
Our firm provides comprehensive services in siting, permitting, environmental, and reclamation for utility-scale infrastructure and renewable energy projects, including solar, wind, hydrogen, transmission lines, and energy generation facilities. Our strong working relationships with regulatory agencies allow us to effectively site and permit transmission and distribution projects that are realistic and mindful.

2DOT pairs services using multi-disciplinary trained environmental specialists to accomplish more with less. Projects are approached with the mindset of minimizing our footprint, which saves our clients' money and reduces environmental impact—always with a safety-first mentality.

We use digital data collection tools to increase efficiency, accuracy, and the ability to leverage data to understand the environment and deliver high-quality services to our clients.

We reduce costs by saving time through implementing a quality control process upfront during data collection, so our managers and technicians don't have to spend hours double-checking our data once it's collected.

2DOT empowers employees to take part in process implementation and improvement. We strive to constantly develop our programs and use staff feedback to enhance our data collection procedures.



## Approach to Safety

2DOT is committed to business practices, operations, and projects that protect people and the environment. We have the necessary experience in complying with the Occupational Safety and Health Act (OSHA).

2DOT has established procedures that provide direction on health and safety matters to all employees and others involved. The goal of the 2DOT Health and Safety Program is zero accidents. Safety takes precedence over expediency. We are committed to compliance with all clients' health, safety, and environmental requirements and regulations. Our safety stats since 2014 confirm our commitment to safety.

## No Reportable Injuries

Man Hours	Miles Driven	Full-time Employees	States 2DOT Has Worked In	OSHA Citations	OSHA 300A Score
<b>163,000+</b>	<b>562,000+</b>	<b>25+</b>	<b>17</b>	<b>0</b>	<b>0</b>



## Services Overview

2DOT approaches services as a complete package, so we cross-train staff to complete a variety of services using fewer resources to complete projects. 2DOT has conducted pre- and post-construction environmental surveys and reports including avian point counts, nest surveys, migration surveys, acoustic bat monitoring, threatened and endangered species (T&E), special status species surveys, post-construction mortality monitoring, wetland/waters of the U.S. (WOTUS) delineations and determinations, Critical Issue Analyses (CIA), and Site Characterization Studies (SCS).

Our permitting experience includes right of way (ROW) siting, Federal Energy Regulatory Commission (FERC), Section 404, Section 401 water quality, Section 106, Phase I Environmental Site Assessments (ESA), Conditional Use Permits (CUP), Industrial Siting and Utility Board Permits, and securing water rights for hydrogen development.

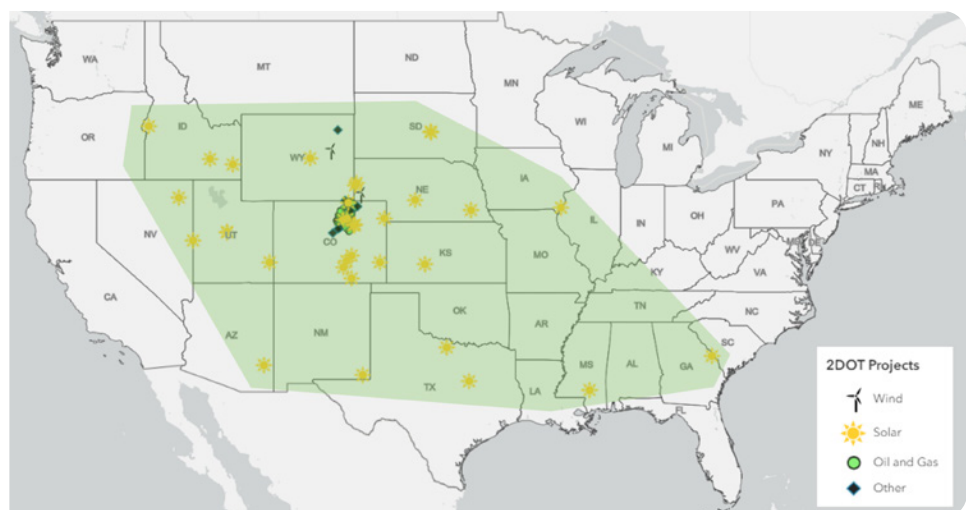
We use an interdisciplinary approach to project implementation. Our key staff includes regulatory and permitting managers, environmental planners, environmental engineers, wildlife biologists, avian experts, botanists, archaeologists, and GIS managers.

Our project managers are professionals who possess extensive and diverse experience and our project teams function under the direction of senior staff with a combined 70 years of environmental consulting experience. Areas of expertise include:

- Experience working with county, state, and federal regulatory agencies
- National Environmental Policy Act (NEPA)
- State-level environmental quality agencies
- Documentation and compliance
- Environmental Impact Statements (EIS), Environmental Assessments (EA), and Categorical Exclusions (CE)
- Public involvement and stakeholder relations
- Natural resource management
- Stormwater and Spill Prevention, Control, and Countermeasure (SPCC) management and inspections
- Reclamation monitoring, plans, and implementation
- Visual resource analysis
- Environmental compliance monitoring and inspections

### 2DOT has worked on projects in over 14 States

Arizona	Nebraska
Colorado	Nevada
Georgia	New Mexico
Idaho	South Dakota
Iowa	Texas
Kansas	Utah
Mississippi	Wyoming





# Services Details



## Route Planning & Feasibility Studies

Our team's experience in the siting and permitting utility projects extends back more than 15 years. We have worked in all types of environmental settings throughout the western United States ranging from densely populated urban areas to agricultural lands and remote settings. Our project study areas have included over 800 miles of transmission line and more than four GW of renewable operations on federal, state, municipal, tribal land, and private lands.

From our work with different agencies and jurisdictions, we understand the importance of regional and local environmental, land use and ownership, and socio-political factors that may impact proposed projects. We apply this knowledge systematically and geographically to each project during initial route planning and feasibility studies through permitting and construction phases.

## Alternatives Identification And Comparison

2DOT is effective in conducting environmental feasibility studies and using automated systems to assist in the acquisition and transfer of data. We have an in-depth knowledge of both electronic and other data sources that are available through agencies.

## Federal Lands And Agency Experience

2DOT has worked with FERC, Bureau of Land Management (BLM), U.S. Forest Service (USFS), Bureau of Indian Affairs, National Park Service, U.S. Fish and Wildlife Service (USFWS), Bureau of Reclamation, Environmental Protection Agency, and the U.S. Army Corps of Engineers (USACE).

## NEPA Compliance

2DOT has prepared hundreds of documents, including Environmental Reports (ER), CEs, EAs, and Resource Management Plan Amendments (RMPAs) in accordance with NEPA.

## FERC Requirements

2DOT has the experience, resources, and capability to coordinate and prepare ERs that satisfy FERC's implementation of NEPA under 18 CFR 380, recent guidance manuals, as well as FERC orders. We have supported applicants in both the pre-filing process and traditional filing process for proposed projects. 2DOT has prepared resource reports for FERC filings including:

- Resource Report 1: General Project Description
- Resource Report 2: Water Use & Quality
- Resource Report 3: Fish, Wildlife & Vegetation
- Resource Report 4: Cultural Resources
- Resource Report 5: Socioeconomics
- Resource Report 6: Geological resources
- Resource Report 7: Soils
- Resource Report 8: Land Use, Recreation, & Aesthetics
- Resource Report 9: Air & Noise Quality
- Resource Report 10: Alternatives
- Resource Report 11: Reliability & Safety
- Resource Report 12: PCB Contamination





## Environmental Planning and Project Management

2DOT manages projects of all scales and degrees of complexity, from feasibility studies to situations highly complicated by public interest, land ownership, environmental issues, and engineering requirements. Our success is based on experience obtained over many years, including:

- Planning, analysis, and public participation studies
- Site analysis, planning, and facility permitting and licensing
- Environmental construction monitoring and inspection
- Phase I ESAs
- Critical Issue Analyses (CIA)
- Site Characterization Studies (SCS)
- Conditional Use Permits (CUP)
- Public hearings
- Permitting matrices for various local, state, and federal projects



We have developed a thorough command of data requirements and systematic and defensible impact evaluation techniques appropriate for many different types of projects. 2DOT is committed to an approach that reduces delays in project planning, avoids confusion and uncertainty among the public and review agencies, and helps develop appropriate and effective solutions.

## Biological Resources

We coordinate with state and federal resource managers to identify and resolve site-specific biological issues of concern, provide support to federal agencies and proponents during Section 7 ESA consultation, Bald and Golden Eagle Protection Act, and develop habitat conservation plans and mitigation plans to avoid and minimize impacts to trust resources. Our biological services include:

- Plant, animal, and fisheries baseline inventories
- Avian point-count and migration studies
- Big game investigations employing radio-telemetry and aerial surveys
- Sage-grouse and other sensitive species investigations, impact assessment, and conservation planning
- Eagle and raptor nesting and monitoring surveys
- Avian and bat protection plans
- T&E and special status plant and animal species surveys
- Plant community analysis, classification, and mapping surveys
- Wetland delineations
- Clean Water Act Section 404 permitting, mitigation planning, and monitoring
- Reclamation and mitigation planning, implementation, and monitoring
- Weed management plans
- Compliance inspections during construction and maintenance operations
- Expert testimony



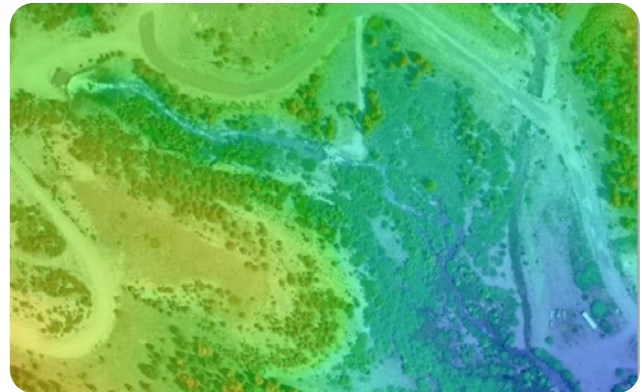


## Visual Resource Planning and Assessment

Visual resource concerns are among the most controversial issues associated with transmission line and energy-related projects. 2DOT maintains relationships with the largest group of trained visual resource specialists in the industry. We have teamed on more than 10 visual analyses for major transmission line and energy-related facilities.

2DOT offers clients a range of technologies promoting efficiency, quality control, and turnaround time to improve the integration of visual, resource, and engineering studies. Our visual resource services include the following:

- Baseline inventories and impact assessments
- Visual perception and attitude surveys
- Computer viewshed analysis
- Visual simulations of proposed projects using computer graphic and video image processing techniques
- Video documentation of site conditions, study products, and meetings
- Mitigation planning and design analysis
- Landscape restoration and reclamation planning and design



## GIS, Drones, and Advanced Information Technologies

2DOT's group of multidisciplinary professionals specialize in the application of drones, GIS, computer-aided design (CAD), database management, application development, visual simulations and animations, and systems administration. Our group understands the challenges associated with the collection, integration, management, and distribution of large amounts of complex data in an efficient, useful, and timely manner to our clients.

We have used GIS and drones as a principal data development, analysis, and cartographic mapping tool on numerous energy facility siting, NEPA compliance, land use planning, environmental management, environmental restoration, transportation planning, telecommunication, and construction management projects.

2DOT uses GPS technology extensively within our environmental planning projects to support the accurate and timely collection of data. Our GIS group can integrate field data automatically, reducing digitizing and field efforts.

Whether it is thermal imagery using FLIR, rapid response to an emergency, surface data acquisitions, impervious surface mapping, or land use vegetation mapping, we have it covered.

UAV aerial imagery service has no minimum altitude, allowing aerial oblique or directly vertical perspectives that can satisfy most imagery needs. UAV imagery integrated with GIS analysis can provide percent coverage, volume, and area calculations as well as georeferenced 2D maps and 3D models.

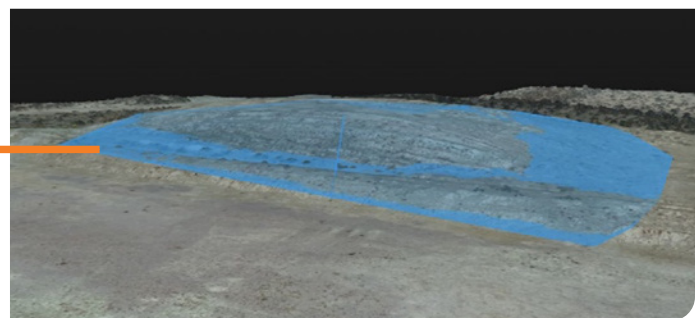


**Drone Capabilities to Collect, Analyze, and Share Data:**

- Reclamation monitoring
- Wildlife and raptor surveys
- Land-use & Land cover mapping
- Equipment inspections
- Aerial imagery
- 3D modeling & map making
- Website and marketing imagery
- Stormwater Inspections
- Area & volume calculations
- Noxious weed mapping
- Visual surveillance & monitoring
- Wetland mapping
- Phase I and II Site Assessments
- Federal T&E species habitat mapping



Topsoil stockpile 3D modeling using our drone to calculate volume and areas



**Qualifications and Software**

- Commercial Remote Pilot Small Unmanned Aircraft
- System License
- FAA Part 107 Registration
- 4K and 20-megapixel capable commercial UAV
- Seven-figure general liability insurance
- GIS professionals
- Software: ArcGIS, ERDAS Imagine, Pix4D, Drone Mapper

## Land Use Planning

2DOT has a long history of working on ranches throughout Wyoming and Colorado so we understand how to grow and maintain relationships. We have conducted land use studies for projects in conjunction with private, city, county, and regional planning departments and have worked closely with developers to integrate planned projects into existing settings while maintaining compatibility with long-range plans. Land use services we routinely provide for clients include:

- Photo and aerial interpretation
- Existing and planned land use inventories
- Land use impact assessments
- Mitigation planning and design
- Preparation of land use permits and conditional use permits
- Preparation of zoning and rezoning applications
- Right-of-way acquisition assistance
- Arranging public meetings and workshops
- Community working groups
- Newsletters and fact sheets
- Comment forms
- Websites
- Telephone information lines
- Display or legal advertisements
- Press releases and meeting with reporters

## Reclamation

2DOT provides reclamation planning and rehabilitation services, from the development of mitigation and reclamation plans to the supervision of reclamation activities and post construction monitoring. 2DOT's range of site reclamation services includes:

- Reclamation planning and design
- Earthwork and drainage plans
- Topsoil salvage assessment and management
- Reclamation oversight and monitoring
- Seed mix development
- Stream and restoration
- Weed management
- Vegetation monitoring

2DOT uniquely combines services such as reclamation monitoring, weed management, stormwater inspections, and BMP installation and maintenance by employing and training highly skilled environmental specialists to complete many tasks.

## Stormwater & SPCC

2DOT has managed thousands of locations ranging from 1–100s of acres. 2DOT develops digital survey collection tools, route planning and optimization, and database-integrated digital site mapping to cut costs while improving accuracy and reducing compliance risks.

Our teams have drafted and maintained dozens of stormwater management plans (SWMP) and SPCC plans. We have professional engineers on staff capable of certifying our plans.





## Cultural Resources

Understanding the application of environmental and cultural resource laws to specific projects is one of 2DOT's many strengths. The range of cultural services for transmission line projects includes:

- Class I inventory
- Class III pedestrian survey
- Archaeological monitoring, protection, testing, & data recovery
- Treatment planning and mitigation
- Cultural resource assessments
- Curation
- Construction monitoring
- Coordination with both state and federal agencies
- Native American and tribal involvement programs



# Clients and Projects Experience





2DOT staff has experience in providing environmental and engineering consulting services for multi-state Transmission lines and other energy projects, in the various lower 48 states, as well as Alaska. This section includes a representative list of our clients and project experience.

### 2DOT Clients

- Black Hills Energy (WY & CO)
- Black Mountain
- Acuity Solar Development
- Dunlieh Energy
- Enbridge
- Enfinity Global
- Freestone Renewables
- Finley Resources
- Invenergy
- Nova Clean Energy
- PacifiCorp
- Rocky Mountain Power
- Silicon Ranch Corporation
- Vitis Energy



### Relevant Project Experience

#### Enbridge: Confidential Wind Farm and Transmission Line

2DOT is currently serving as the environmental consultant for Enbridge on a 300 MW proposed wind farm and transmission line in eastern Wyoming. 2DOT performed two years of pre-construction surveys and reports that included a critical issues analysis, site characterization study, cultural resources literature review and tech memo, ASTM Phase I ESA, habitat mapping, eagle and raptor nest surveys, avian point counts, acoustic bat monitoring, greater sage grouse surveys, mountain plover, long-billed curlew, marsh birds, upland sandpiper surveys, burrowing owl surveys, avian migration surveys, Ute ladies'-tresses surveys, and swift fox surveys. A Survey123 database was created for each survey that included digitized flight paths in avian surveys.

2DOT coordinated with the USFWS and the Wyoming Game and Fish Department (WGFD) regarding surveys and potential mitigation of the wind farm and proposed transmission line. 2DOT is currently working on a conditional use permit and Wyoming Industrial Siting Permit.

#### Dunlieh Energy: Solar Farms and Green Hydrogen/Ammonia Plants

2DOT is currently serving as the environmental consultant for Dunlieh Energy on 14 proposed solar farms (2.4 GW) in NE, UT, TX, AZ, NV, KS, SD, MS, WY, and GA. 2DOT performed critical issues analyses, permit matrices, site characterization studies, cultural resources literature reviews, county permitting, water resource evaluations, and well permitting for green hydrogen production.

In Scotts Bluff County, Nebraska, 2DOT worked on a 400 MW solar farm and conducted an ASTM Phase I ESA, habitat mapping, eagle and raptor nest surveys, wetland delineations, burrowing owl surveys, swift fox surveys, social and economic impact report, and submitted a conditional use permit (CUP). As part of the CUP, 2DOT submitted a road maintenance agreement, landscape and screening plan, SWMP, decommissioning plan, and emergency response plan. 2DOT presented the CUP to the planning commission in a public hearing and two follow-up open houses. 2DOT currently awaits the next hearing with the board of commissioners.



### **Acuity Solar Development**

2DOT is currently serving as an environmental consultant for Acuity Solar Development on nine proposed solar farms (1.2 GW) in CO, WY, UT, and IA. 2DOT performed habitat assessments, critical issues analyses (CIA), T&E species habitat surveys, wetland delineations, cultural resources literature reviews, and ASTM Phase I ESAs and has been retained for assistance with federal, state, and local permitting and regulatory requirements.

### **PacifiCorp: Gateway West Transmission Line**

2DOT served on the land use task team for transmission line route selection and permitting on the 1,100-mile project across Wyoming and Idaho. 2DOT participated in IDT with various state and federal agencies, including WGFD, BLM field offices and landowners. 2DOT performed T&E species habitat surveys, impact assessment, and preliminary wetland mapping. Route selection included consultation with landowners, minimization of impacts to agricultural land, critical big game habitat, nesting raptors, eagle roosts and sage-grouse leks.

2DOT supported and managed field crew leaders with accurate and updated field maps that reflected specific restrictions of landowners and Federal agencies. 2DOT Managed all landowner access, GPS mapping and database management using 2008 Trimble units using Pathfinder and Arcpad.

### **PacifiCorp: Ekola Flats and TB Flats Wind Farm**

2DOT conducted Phase I Environmental Site Assessments and migratory bird nest surveys on 83,330 acres in Carbon and Albany County, Wyoming. Reports for the Ekola and TB Flats Wind farm Phase I ESA conformed to the ASTM E1527-13. Reports were submitted before the proposed deadline and under budget. 2DOT provided support and a site assessment report for transfer of ownership from Invenergy to PacifiCorp for the 33,200-acre, 250 MW, Ekola Flats wind farm in Carbon County, WY. These projects included up to 300 wind energy turbines, collection lines, transmission lines, access roads, substation, and an operation and maintenance facility. 2DOT facilitated the transfer with an SF299 ROW permit along with a comprehensive reclamation plan, approved by the Rawlins WY BLM Field office.

### **Invenergy**

2DOT has completed a Vegetation and Soil Management Plan (VSMP) for Invenergy near Carlsbad, New Mexico. The VSMP will be used by a contractor to implement reclamation and construction following our detailed management plan. In support of the VSMP, 2DOT conducted topsoil depth surveys, soil sampling for lab analysis, vegetation surveys, and landowner engagement questionnaires. 2DOT consulted with local NRCS experts to help inform VSMP recommendations.

### **Black Hills Energy**

2DOT has been an on-call environmental service provider for Black Hills Energy in Colorado and Wyoming since 2016 and is an on-call consultant for Black Hills Energy to conduct:

- Phase I ESAs
- T&E wildlife clearances
- FERC permitting
- Wetland delineations and determinations
- Wetland section 404 permitting
- SWMP management
- Stormwater inspections
- BMPs installation and maintenance
- Reclamation plans
- Reclamation implementation
- Earthwork
- Weed management

### **Colorado Springs Utilities**

2DOT worked with state and federal agencies including Colorado Parks and Wildlife (CPW) to establish the appropriate and acceptable species-specific protocol surveys to fulfill permitting requirements for reclamation and facilities upgrade and maintenance.

2DOT conducted comprehensive site assessments, presence or absence of federal and T&E species and their habitat, migratory bird nests, raptor nests, hydrology, and wetlands. In addition to the site assessment, 2DOT collected noxious weed locations and GPS data for a comprehensive weed treatment plan. 2DOT used drones to facilitate site assessment and to map the noxious weeds.

### **TCI Renewables**

2DOT completed a Critical Issues Analysis (CIA) for the 1.5-MW Idalia Wind farm Project in Yuma County, Colorado. The primary tasks for this project included:

- Identified environmental permitting requirements by federal, state, and local lead agencies.
- Desk top analysis for potential occurrence and habitat of special status species of plants and wildlife species including bats and birds, habitat classifications including plant communities, wildlife, wetlands, conservation areas along with easements, and recreational designation for the project site area.
- Qualitative analysis of possible concerns and issues that may impact or delay the project site area's development into a wind farm.
- Identify specific issues that may impact the project's development based on permitting, planning, project costs, and post construction monitoring requirements.
- Recommendations for course of action that may be required to avoid and/or mitigate potential environmental impacts to the project area.
- Permit matrix table by investigating federal, state, and county requirements as it pertains to the project development footprint. 2DOT focused on permits and field studies necessary to achieve local, state, and Federal approval along with NEPA compliance, if necessary.
- Identify Categorical Exclusions to the NEPA process and determine if an EA or EIS is necessary.
- Prepared Special Use Permit Application and figures.
- Conducted initial avian and bat surveys and mapped suitable habitat.
- Conducted migratory bird surveys.
- Conducted wetland, hydrology, and vegetation mapping.
- Identified areas of critical environmental concern
- Identified prime and unique farmland

### **Adani Group: Renewable Energy**

2DOT worked with state and federal agencies including Utah Division of Wildlife Resources (UDWR) to establish the appropriate and acceptable species-specific protocol surveys to fulfill permitting requirements. 2DOT conducted comprehensive site assessments, presence and absence of federal and state T&E species and their habitat, migratory bird nests, raptor nests, hydrology, and wetlands.

**Finley Resources**

2DOT was Finley's on call environmental and engineering consultant for a large Plan of Development (POD) that involved intense fieldwork for siting and planning. 2DOT holds all UTE Tribe Business Licenses and Access permits to conduct fieldwork in the Uintah Basin. 2DOT holds all USFWS certifications to conduct all rare plant surveys for:

- Barneby ridge-crest (endangered)
- Uintah basin hookless cactus (threatened)
- Ute ladies'-tresses (threatened)
- Noxious weeds (State and County listed)
- 2DOT holds all USFWS certifications to conduct protected bird surveys for:
  - Yellow-billed Cuckoo
  - Mexican Spotted Owl
  - Southwestern Willow Flycatcher