



Statement of Qualifications

Perspective // Vision // Solution

 **NewFields**



Since 1995, we have been providing businesses with “practical” and “tactical” expertise. Where we collect, research, refine & provide the actionable intelligence needed to resolve your complex business needs.



WHY NEWFIELDS

We specialize in developing and deploying knowledge management and information technologies that seek solutions for our clients – safely, efficiently, effectively and consciously.

NewFields is an environmental engineering and consulting firm. We provide our client base with access to a world-wide network of recognized experts & professionals in data analytics, social and health impact, environmental sciences and permitting, remediation design, extractive resource design, construction and program management, as well as litigation support. Our talented staff is a diverse group of accomplished individuals, most of whom are senior level engineers, scientists & specialists who offer their client base both “practical” and “strategic” solutions to obtaining resources needed by society while protecting, preserving and restoring the environment.

WHY NEWFIELDS?

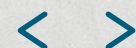
ABOUT NEWFIELDS

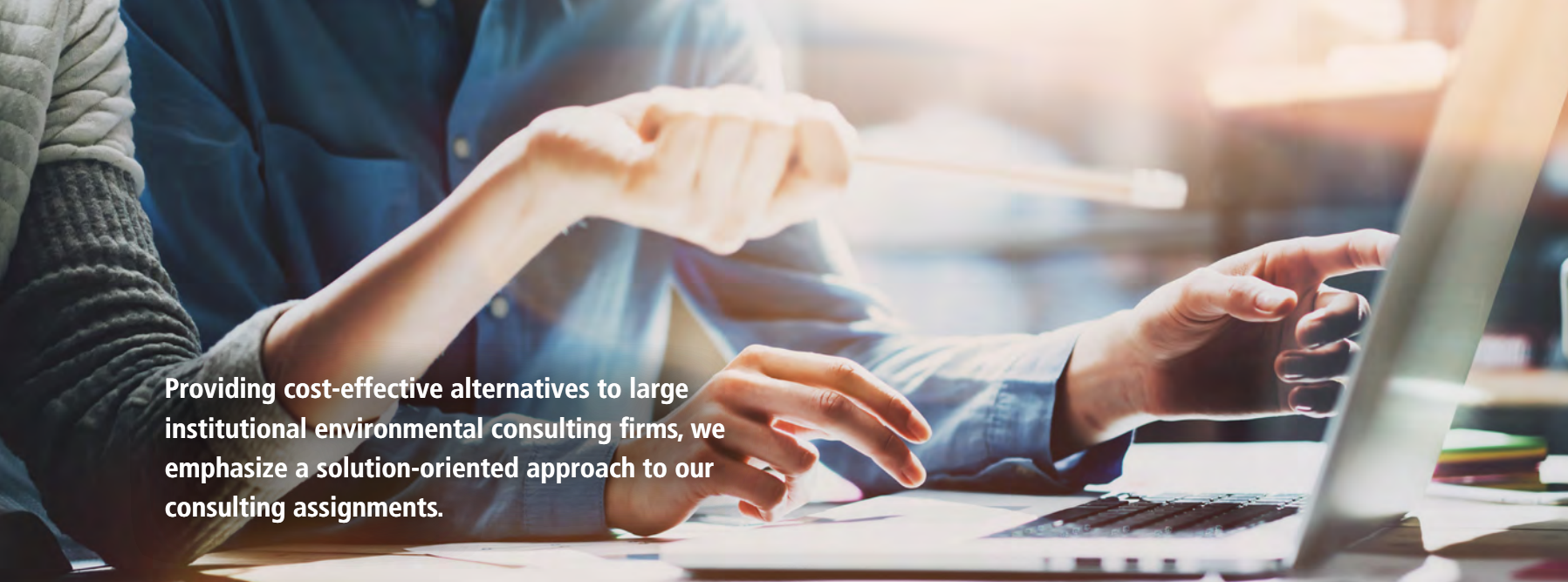
OFFICE LOCATIONS

CLIENT LIST

SCOPE OF SERVICES

- Air & Acoustics
- Communication & Visualization
- Environmental Engineering
- Forensic Chemistry & Laboratory Services
- Hydrology & Groundwater Modeling
- Sediment Management + Marine Science
- Impact Assessments & Analysis
- Information Services
- Mining & Design Services
- Renewables
- Water & Wastewater Management + Design Services
- UAVs and USVs





Providing cost-effective alternatives to large institutional environmental consulting firms, we emphasize a solution-oriented approach to our consulting assignments.

PERSPECTIVE

Our personnel have successfully completed projects on six continents and in over 70 countries.

These innovative thinkers offer skills that bridge multiple disciplines with problem-solving abilities that transcend traditional approaches.

We provide comprehensive services for the resolution of all aspects of environmental projects.

VISION

We provide the highest possible quality of individual expert advice and a unique ability to address complex multidisciplinary problems with teams of specialists.

We offer unique decision making tools with Facilitated DCA®, Decision Consequence Analysis, which is our proprietary methodology for facilitating collaboration and consensus. Combining decision consequence analysis with the most advanced data management and analysis, we empower clients to understand and find the underlying order in complex challenges.

SOLUTION

We provide the tools for achieving sustainability in a rapidly changing, interconnected world.

Our clients represent a complete spectrum of business and government, which includes:

- Oil, gas and chemical
- Pharmaceuticals
- Mining
- AgroChemical
- Alternative energy
- Aviation
- Transportation
- Other

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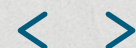
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Mining & Design
Services

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Management + Design
Services

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Atlanta, LLC

Two Midtown Plaza
W. Peachtree Street,
Suite 2000
Atlanta, GA 30309
(404) 347-9050

Maryland

Executive Suites
110 North Washington Street
Easton, MD 21601
(410) 770-8999

3230 Maiden Lane, Suite 3
Manchester, MD 21102
(443) 291-6185

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300 Ledgewood Place,
Suite 305
Rockland, MA 02370
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Renewables

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Management + Design
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NewFields' clients cover a wide range of industries and sizes, from petrochemicals to renewables and individual homeowners to Fortune 500 companies and federal agencies.



Oil/Gas/Chemicals

ExxonMobil
Shell
Chevron
Occidental
British Petroleum (BP)
Citgo
ConocoPhillips
Dow Chemical



Pharmaceuticals

Eli Lilly
Pfizer
Merck
GlaxoSmithKline



Mining

Newmont Mining
BHP Billiton
Klondex Mines
Barrick Gold



AgroChemical

Bayer CropScience
Monsanto
Syngenta
Olin
BASF
Sanofi



Alternative Energy:

First Solar
Sempra
SunPower



Aviation

American Airlines
Delta Airlines
United Airlines
Southwest
Boeing
FedEx
United Parcel Service (UPS)



Transportation (Automobile/Rail)

Ford Motor
General Motors
BNSF Railway
CSX Transportation
Kansas City Southern
Union Pacific



Other

AT&T
Coca-Cola
Colgate
Dole Food
General Foods
General Electric
NOAA
Wal-Mart

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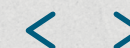
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Unparalleled expertise, broad-based capability and intergrated disciplines —
NewFields is uniquely qualified to meet your needs.



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Air & Acoustics

We offer air support services through the permitting process by completing applications, negotiating terms to minimize requirements, and assisting clients in navigating through the process of regulatory and public review. We offer both in-air and underwater noise monitoring, modeling, and detailed analysis for a wide range of projects across all market sectors.

- Compliance
- Chemometrics
- Deposition and Transport
- Review of Applicable Noise Regulations
- Collection of Ambient Data (Baseline Sound Survey)
- Modeling Acoustic Levels
- Mapping Acoustic Contours
- Designing Mitigation Alternatives
- Monitoring Short-term and Long-term

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& Analysis

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Services

Renewables

Water & Wastewater
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Services

UAVs and USVs





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ABOUT NEWFIELDS
OFFICE LOCATIONS
CLIENT LIST

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Engineering

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Mining & Design
Services

Renewables

Water & Wastewater
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Services

UAVs and USVs

Communication & Visualization

We have created a powerful way to communicate and present information by combining science with art. Working closely with in-house engineers, physicians, and graphic artists, we distill complex data and factual documents into compelling and informative visualizations. We excel at communicating the story that the data reveals using cutting edge media and graphical practices.

- 3 and 4D Simulations
- Interactive Reporting and Analysis Tools
- Scientific Demonstratives & Illustration
- Animation & Video
- Communication Briefs





Environmental Engineering

We provide comprehensive due diligence services for property acquisition and/or disposition; site investigation; remediation design and implementation of the remedial programs.

- Phase I/II Assessments
- Environmental Liability Assessments
- Environmental Regulatory Compliance Audits
- Remediation Design, Construction and Operation
- Landfill Cap, Design, and Construction
- Portfolio Management
- Brownfields Development

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CLIENT LIST

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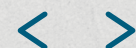
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Forensic Chemistry & Laboratory Services

Our scientists help Fortune 100 companies, regulatory agencies, and many other clients assess contaminated sites associated with chemical and particulate discharges to soil, groundwater, sediment and air. These investigations range in size from small service stations to EPA sediment "megsites." We collaborate extensively with legal teams, engineers, risk assessors, and remediation specialists throughout North, Central, and South America as well as Europe, Africa, and Asia.

- Forensic & Environmental Chemistry
- Oil Spill Investigations and Forensic/Oil Spill Field Sampling
- Due Diligence/Advanced Site Investigation
- Refineries, Pipelines, and Contaminated Sediments
- Air and Vapor Intrusion Chemistry
- Offshore Oil and Gas E&P Operations
- Natural/Shale Gas Forensics
- Chemical Manufacturing
- Electrical Equipment Manufacturers and Operators
- Drycleaners and Degreasing Operations
- Paper Plants and Wood Product Manufacturers
- Ports, Harbors, and Shipyards
- MGPs, Coal Byproducts, Coke, and Creosote Plants

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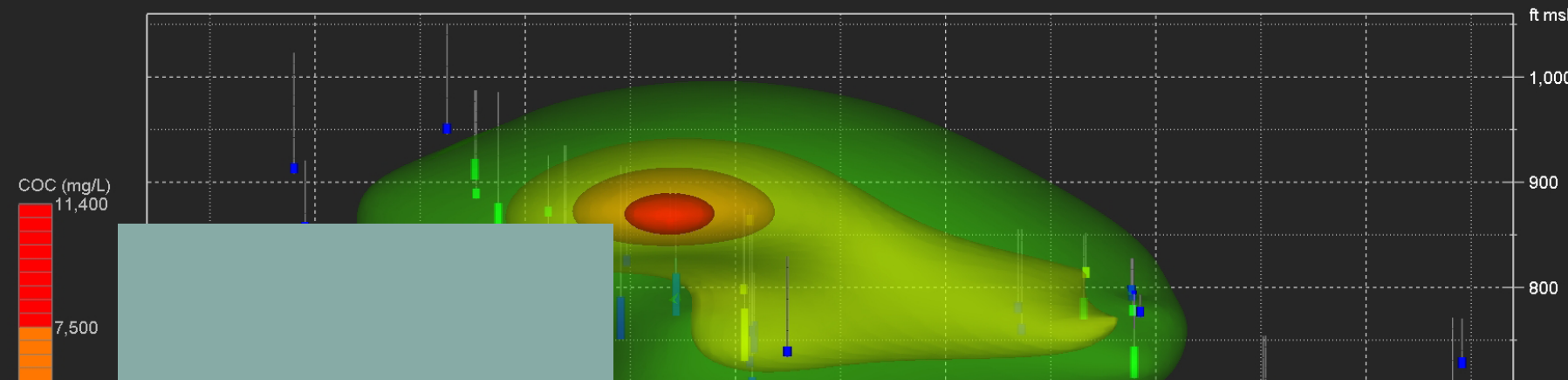
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& Visualization
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Hydrology & Groundwater Modeling

Hydrogeology includes groundwater resource management, aquifer characterization, and contaminant transport. We design and implement field programs to collect site information efficiently with state-of-the-art technologies. This data is then used to develop analytical and numerical computer models. Applying these models allows us to evaluate and solve the complex problems that our clients require involving resource and strategic planning, litigation support, and risk-based decision making. We also use visualization software to produce 3D images and videos, which enable effective communication to technical specialists, managers, legal teams, and the general public. Our services include:

- Water Resources Management
- Resource Planning and Optimization
- Contaminant Source Identification
- Contaminant Migration
- Risk Assessment
- Remedial Design and Optimization
- Travel Time Analyses
- Groundwater – Surface Water Interactions

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ABOUT NEWFIELDS
OFFICE LOCATIONS
CLIENT LIST

SCOPE OF SERVICES

Air & Acoustics
Communication & Visualization
Environmental Engineering
Forensic Chemistry & Laboratory Services

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Sediment Management + Marine Science
Impact Assessments & Analysis
Information Services
Mining & Design Services
Renewables
Water & Wastewater Management + Design Services
UAVs and USVs





WHY NEWFIELDS?
ABOUT NEWFIELDS
OFFICE LOCATIONS
CLIENT LIST

SCOPE OF SERVICES

Air & Acoustics
Communication
& Visualization
Environmental
Engineering
Forensic Chemistry
& Laboratory Services
Hydrology & Groundwater
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Impact Assessments
& Analysis
Information Services
Mining & Design
Services
Renewables
Water & Wastewater
Management + Design
Services
UAVs and USVs



Sediment Management + Marine Science

Our sediment programs require a variety of technical disciplines to address multiple media, complex site exposure pathways and multiple contaminants of concern. We provide the technical expertise and experience to meet our clients' objectives in a cost-effective manner.

- Aquatic Habitat Assessment, Monitoring, and Resource Management
- Contaminated Sediment Management
- Natural Resource Damage Management
- Human Health and Ecological Risk Assessment
- Geographic Information Systems (GIS) for Site Management
- Beneficial Reuse, Remediation
- Strategic Planning
- Site Assessment & Characterization
- Source Identification/Allocation
- Seafloor Investigation and Monitoring
- Natural Resource Damages



Impact Assessments & Analysis

Impact assessment services examines the adverse effects of chemical substances on living systems and the environment. Services include:

Environmental Impact Assessment

- Facility Siting and Planning Services
- National Environmental Policy Act (NEPA) and Related State Environmental Policy Compliance
- Public and Community Involvement

Health Impact Assessment (public health & occupational medicine)

- Human Health Toxicology
- Retrospective and Prospective Exposure Assessment
- Evaluation of Biomonitoring Data
- Toxicity Assessment
- Deterministic and Probabilistic Human Health Risk Analysis

Social Impact Assessment

- Human Environmental Baseline and Impact Analyses
- Economic Impacts
- Minority- and Low-Income Populations Impact Examination
- Local Resident Health Risks Examination

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ABOUT NEWFIELDS

OFFICE LOCATIONS

CLIENT LIST

SCOPE OF SERVICES

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Communication
& Visualization

Environmental
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Forensic Chemistry
& Laboratory Services

Hydrology & Groundwater
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Sediment Management
+ Marine Science

Impact Assessments & Analysis

Information Services

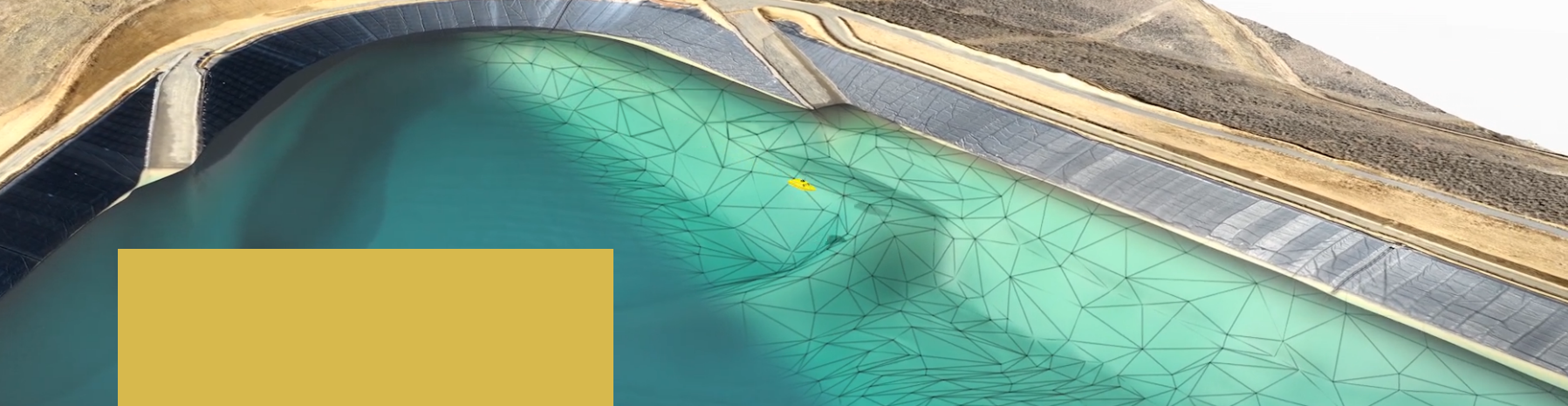
Mining & Design
Services

Renewables

Water & Wastewater
Management + Design
Services

UAVs and USVs





Information Services

We specialize in our ability to turn data into information and then into action. We bring together the three critical skill sets needed to apply knowledge and data management: the ability to understand and build mathematical models, the applied engineering and scientific skills to understand the significance of data, and the experience to find insights and build and communicate a coherent narrative from the data.

- Statistics
- Natural Resource Monitoring
- Habitat Assessment
- 3D Modeling
- Stratigraphic and Structural Analyses
- Hydrogeologic Analyses
- Contaminant Distributions
- Remedial and Monitoring Designs
- Geographic Information Systems (GIS)
- Robotics & Remote Sensing
- Decision Consequence Analysis
- Probabilistic Cost Estimating
- Uncertainty Analysis
- Custom Web Apps

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OFFICE LOCATIONS

CLIENT LIST

SCOPE OF SERVICES

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& Visualization

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Engineering

Forensic Chemistry
& Laboratory Services

Hydrology & Groundwater
Modeling

Sediment Management
+ Marine Science

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& Analysis

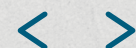
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Services

Renewables

Water & Wastewater
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Mining & Design Services

Our Mining and Design Services team offers the mining industry a competitive and efficient alternative for all permitting, engineering design, and construction management needs. Services include:

- Airshed Modeling
- Baseline Studies (Physical, Biological, Social, & Health Sciences)
- Construction and Project Management
- Data Visualization
 - 3D animations
 - Interactive graphics
 - Public forums
- EIS/EA/ESIA Preparation
- Engineering Design (Tailing Storage Facilities, Waste Rock Disposal, Leach Pads, Closure/Capping, Civil Infrastructure)
- Environmental Compliance and Monitoring
- Environmental Design Criteria Development
- Environmental Engineering
- Environmental Geochemistry and Solute Transport Modeling
- Environmental Permitting
- Geotechnical Engineering
- Hydrogeology and Groundwater Modeling
- Hydrology and Surface Water Modeling
- Laboratory and Field Quality Assurance and Quality Control Testing and Inspection
- Mine Reclamation and Closure Planning
- Mine Discharge and ARD Treatment Analysis and Design (including passive and semi-passive alternatives)
- Water Resource Studies & Water Balance Analyses
- Water Rights
- Water Supply Development
- Wildlife Habitat Assessment and Enhancement

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ABOUT NEWFIELDS

OFFICE LOCATIONS

CLIENT LIST

SCOPE OF SERVICES

Air & Acoustics

Communication
& Visualization

Environmental
Engineering

Forensic Chemistry
& Laboratory Services

Hydrology & Groundwater
Modeling

Sediment Management
+ Marine Science

Impact Assessments
& Analysis

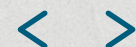
Information Services

Mining & Design Services

Renewables

Water & Wastewater
Management + Design
Services

UAVs and USVs





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ABOUT NEWFIELDS
OFFICE LOCATIONS
CLIENT LIST

Renewables

We are committed to supporting our clients in developing cleaner, effective and renewable energy sources. In the energy sector EPC commonly stands for Engineering, Procurement, and Construction. We provide the EPC before the EPC, namely Equity, Permitting, and Compliance. Support services range from capital raising, due diligence, environmental permitting all the way through construction monitoring and support services. Renewable energy generates electricity from sustainable sources with little to no pollution or global warming emissions and these technologies include:

- Solar Energy
- Wind Energy
- Geothermal Energy
- Biomass/Biofuels
- Waste Energy
- Battery Storage

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Communication
& Visualization

Environmental
Engineering

Forensic Chemistry
& Laboratory Services

Hydrology & Groundwater
Modeling

Sediment Management
+ Marine Science

Impact Assessments
& Analysis

Information Services

Mining & Design
Services

Renewables

Water & Wastewater
Management + Design
Services

UAVs and USVs





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ABOUT NEWFIELDS

OFFICE LOCATIONS

CLIENT LIST

SCOPE OF SERVICES

Air & Acoustics

Communication
& Visualization

Environmental
Engineering

Forensic Chemistry
& Laboratory Services

Hydrology & Groundwater
Modeling

Sediment Management
+ Marine Science

Impact Assessments
& Analysis

Information Services

Mining & Design
Services

Renewables

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UAVs and USVs



Water and Wastewater Management + Design Services

Our water and wastewater practitioners have extensive hands-on operational experience and understand the demands of providing safe, reliable and continuously operating treatment systems. With this understanding, we listen to your needs and concerns and develop solutions tailored to meet your goals, budget and technical capability.

- Wastewater Treatment
- Water Treatment
- Stormwater
- Construction oversight, start up and operator training
- Treatment system trouble-shooting and rehabilitation
- Operational support
- Regulatory support and permitting
- Technologies Utilized



UAVs and USVs

We own and operate a fleet of photogrammetry tools to offer a cost-effective mapping solution. From a small UAV (sensefly eBee) to the specialized XCAM pod (easily mounts to light aircraft), still images are captured and processed into hi-quality topography and orthoimagery. A USV (Z-Boat) is used to complete the picture below the waterline utilizing the survey-grade hydrographic sensors. Data products are rapidly incorporated into GIS to be used in a wide range of applications from managing mining operations, modeling contaminant transport, or monitoring natural resource recovery.

- **eBee** – covers large areas that provides data to create precise 3D maps
- **Quadcopter** – Allows for rapid inspection of site features
- **Z-Boat** – Provides reliable, accurate and survey tested remote sub-surface survey data.

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Environmental
Engineering

Forensic Chemistry
& Laboratory Services

Hydrology & Groundwater
Modeling

Sediment Management
+ Marine Science

Impact Assessments
& Analysis

Information Services

Mining & Design
Services

Renewables

Water & Wastewater
Management + Design
Services

UAVs and USVs





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SCOPE OF SERVICES

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Forensic Chemistry
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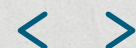
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& Analysis

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Water & Wastewater
Management + Design
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UAVs and USVs

