



ELARD

Earth Link & Advanced Resources Development



YOUR PARTNER IN A CHANGING WORLD


DELIVERING SUSTAINABLE SOLUTIONS
TURNING ENVIRONMENTAL NEEDS INTO OPPORTUNITIES

ABOUT US

Earth Link & Advanced Resources Development (ELARD)

As a leading regional consultancy firm, operating primarily in the Middle-East, Gulf and North Africa, ELARD has become a key service provider to the oil and gas sector in the region.

ELARD has been established in 1996 in Beirut, and rapidly grew to have several permanent offices in the region, such as in Syria, the United Arab Emirates, Libya and in Iraq to better serve its regional clients. As part of its expansion strategy, new permanent offices are being established in Qatar and Saudi Arabia.



ELARD experience extends to many countries including Lebanon, Syria, Jordan, Palestine, Iraq, UAE, Qatar, Oman, Yemen, Saudi Arabia, Iran, Pakistan, Nigeria, Egypt, Morocco, Tunisia, Algeria and the Caspian countries, as well as in other frontier oil and gas countries such as Montenegro.

At ELARD, we pride ourselves on our customer oriented approach and core company values. The foundations of our success are:

Our Expertise to meet our clients' needs through a team of dedicated professionals with extensive experience and distinguished qualifications.

Our Commitment to give priority to our clients' satisfaction, needs, organizational goals and resources.

Our Vision for a better tomorrow inspiring us to devote all our efforts to the success of a project.

ENVIRONMENT & HSE

ELARD, a world-class environmental and HSE consultancy firm, partners with clients to assess and manage the potential environmental, socio-economic, as well as health and safety issues associated with their activities and products.



Whether through responding to existing challenges, implementing measures to prevent future liabilities, or seeking sustainable strategies, clients around the world benefit from our technical and scientific skills, knowledge of local and international requirements and the customization of solutions to meet each individual client's need and concerns.





Environmental & HSE Services

ELARD offers environmental and HSE services for public and private institutions.

ELARD's experience spans a broad range of sectors, from small-scale developments in urban areas, to large industrial projects for the oil and gas sector, transportation sector, manufacturing industries, and property developers.

ELARD's HSE Department will support you with every aspect of your environmental requirements including:

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- Environmental Permitting
 - Health, Safety and Environmental Impact Assessment (HSEIA)
 - Strategic Environmental Assessment (SEA)
 - Environmental and Social Impact Assessment (ESIA)
 - Environmental Baseline Surveys
 - Environmental Auditing
 - Environmental Management Plans and Systems (EMP/EMS)
 - Environmental Risk Assessment (RA)
 - Occupational Health
 - HAZID/ENVID/OHID Studies
 - HSE compliance studies
 - HSE Audits
 - Development of HSEMS
 - Ecosystem Management and Biodiversity
 - Climate Change Adaptation and Mitigation Strategies
 - Environmental Economics
 - Solid Waste Management
(Municipal and Industrial Waste, including Hazardous Waste)
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Air & Noise

A growing amount of attention has lately been drawn towards the issues of outdoor and indoor air, noise quality and their impacts on health and the surrounding environment.

ELARD uses an interdisciplinary team approach to assess air and sound quality, evaluate emission sources, model plume dispersion and determine the nature of impacts.

ELARD's core Air and Noise services include:

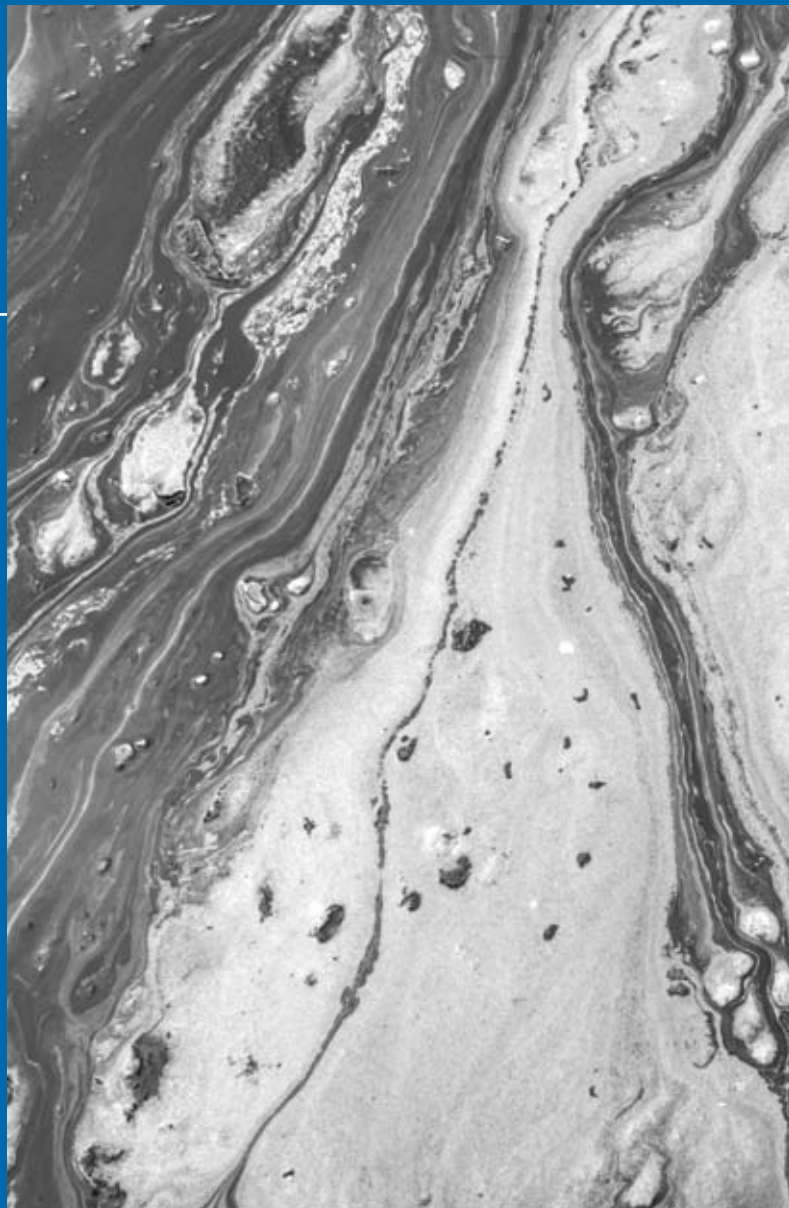
- Ambient and Indoor Air and Noise Monitoring
- Air Quality Dispersion Modeling
- Noise Modeling
- Stack Emission Measurements and Monitoring
- Radiation Monitoring

Environmental Remediation

Acquiring, reusing or disposing of contaminated sites requires time-tested experience to ensure sustainable solutions for future uses. ELARD provides clients around the world with a full range of remediation solutions to manage liabilities associated with contaminated soil, groundwater, sediments and infrastructure.

Together with our Strategic Partners we provide the following Services:

- Due Diligence
- Environmental Site Assessment (Phase 1 and Phase 2)
- Remedial Investigation / Feasibility Study (RI/FS)
- Environmental Remedial Design and Construction Engineering
- Design and Tender Preparation Construction Supervision



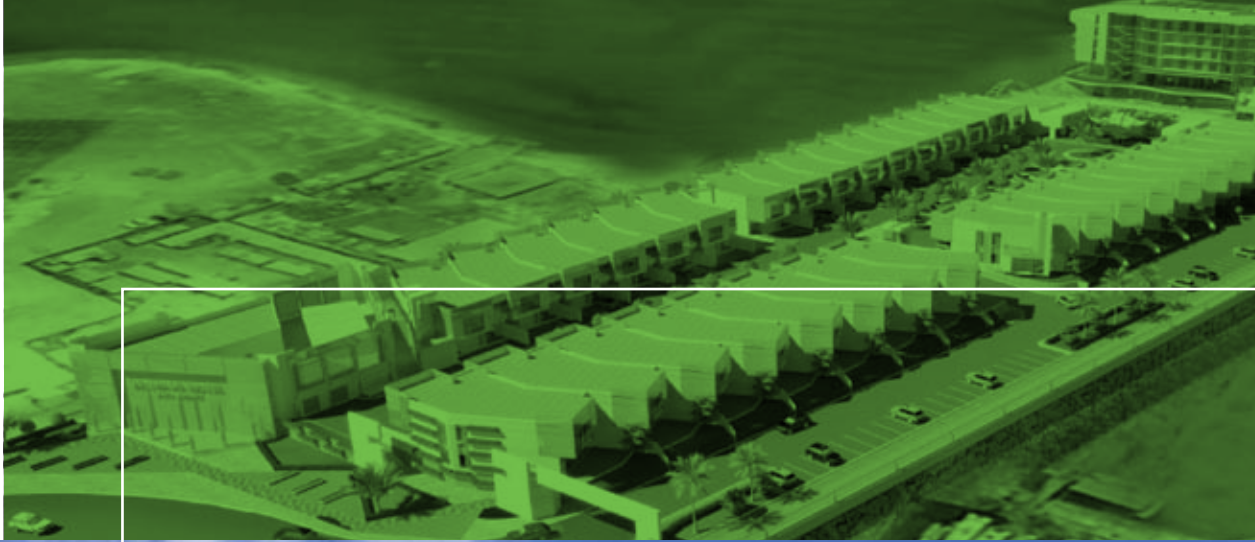


Policy, Legal and Institutional Development

The proper management of the world's natural resources is central to sustainable economic growth. In this respect, financial resources alone are not enough to complete this task. Factors such as a supportive framework of legislation, policies, economic incentives, cost recovery schemes, and privatization measures have demonstrated integrated and long-term solutions to environmental problems.

ELARD has extensive experience in

- Legal and institutional review and assessments,
- Policy and strategy development
- Institutional awareness and Conflict resolution
- Rural/ Community Development
- Training and Awareness



Sustainability Consultancy

Sustainable design and development now plays an increasingly major role in the design, construction and operation of all development and is being implemented worldwide through various Green building certification systems such as LEED® , the Pearl Rating System – ESTIDAMA among others.

ELARD supports its clients in the delivery of Sustainable Design and services through its team of highly skilled and experienced Estidama Pearl Qualified Professionals and LEED® Accredited Professionals.

ELARD provides its clients with various services in the field of sustainable consultancy with the focus on its main principles:

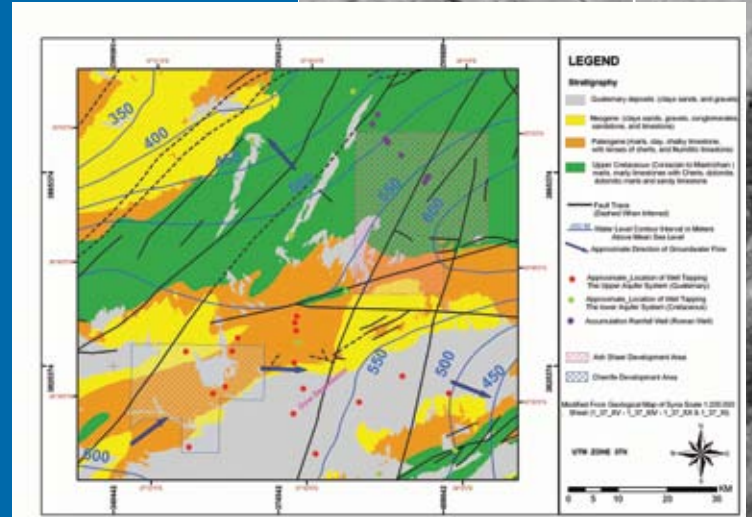
- Energy conservation and the use of alternative energy sources
- Indoor air quality enhancement
- Use of low embodied energy materials
- Water protection and conservation
- Optimization of the operational and maintenance practices

ELARD works with developers, architects, contractors and facility managers to:

- Create high performance buildings and communities
- Reduce the overall carbon footprint in the designs' blueprints
- Provide more profitable operations facilities; easier to lease, healthier and more comfortable to occupy.

GEOSCIENCES

ELARD is one of the region's top consulting firms that are specialized in Applied earth sciences, including in Applied earth sciences, including geology, geophysics and hydrogeology, offering it services to governments, water and power utilities, various industries, mining companies, and the oil and gas sectors.

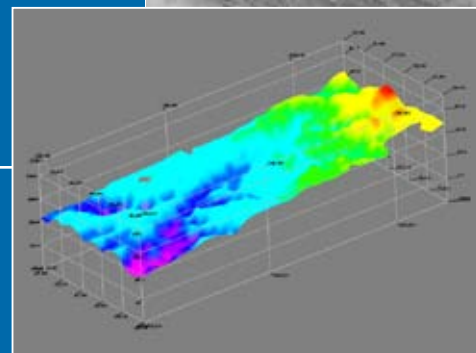
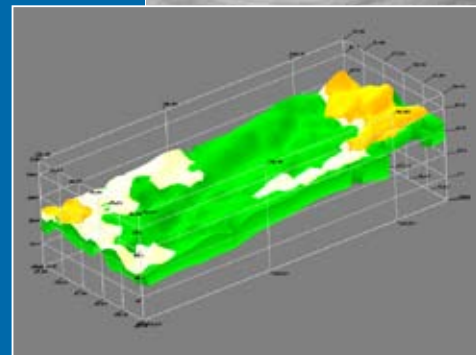


Geology

In addition to geological investigation for groundwater resources assessment, and the oil and gas industry, ELARD has extensive experience complex geological surveys preceding the construction of civil infrastructures such as dams, tunnels, water conveyors, as well as for raw material extraction, and quarries establishment.

These services includes among others:

- Regional and detailed geological mapping.
- Sub-surface 3-D geological modeling and visualization
- Formation evaluation and petro-physical analysis
- Qualitative and quantitative sub-surface raw material resources assessment through 3-D spatial analysis for volume and surface estimation
- Quarry, and Mineral Resources Assessment



Hydrogeology

The rapid expansion of ELARD in the region was attributed to its outstanding record of conducting complex comprehensive hydrogeological studies in Semi-Arid and Arid climates, in MENA countries and South Asia.

ELARD has extensive Experience in:

- Hydrogeological Characterization and Groundwater Resource Assessment
- Basin Delineation / Basin Yield Evaluation
- Groundwater Flow and Contaminant Transport Modeling
- Aquifer Vulnerability Study, and Well Head Protection Study
- Salt Water Intrusion Assessment
- Tracer Testing , Groundwater Isotope Dating, and Groundwater Sampling
- Aquifer Yield Testing
- Groundwater Monitoring Plan
- Well Field Design & Construction Supervision
- Aquifer Storage Recovery (ASR) System Assessment, Design and Operation



Geophysics

ELARD is one of the leading regional firms that provides a full-range of geophysical services for hydrogeological, mining, and geotechnical applications such as delineation of depth to bedrock, subsurface stratigraphy and structures, groundwater contamination, underground utility, archeological features and cavity detection. Moreover, ELARD has access or possesses the equipment necessary to conduct such investigations and is the only firm in the region which possesses two truck-mounted logging system with a depth investigation capacity of up to 2000m.

Our range of Geophysical Services includes the following:

- Shallow Seismic Investigation
- Resistivity and Electromagnetic Survey (VLF, EM, VES, and Tomography)
- Gravimetric and Microgravity Surveys
- Ground Penetrating Radar (GPR)
- Cross-hole Seismic, Electric and Radar Tomography
- Open and Cased Hole Geophysical Logging
- CCTV Survey (Down-hole Camera)





WATER RESOURCES MANAGEMENT & ENGINEERING



The water cycle is of critical importance to our daily lives. Unless guided by expert knowledge and specialist technology, development activity can have a negative impact on this natural process.

Our Water team addresses these issues on projects ranging from small-scale, local design to high-level international water governance studies. Much of what we do involves mitigating damage to the water environment from historically unsustainable development and making sure that future work does not have further adverse impacts.

ELARD is renowned for its comprehensive and leading skills in all aspects of the water cycle from water supply to treatment, conveyance, wastewater treatment, reuse and recovery, and return to the natural environment.

Water Resources Management

Water resources management encompasses a wide range of disciplines and expertise, including integrated water resources management, assessments of the demand and consumption of water for drinking and irrigation purposes, applied hydrology, simulation and modeling of the hydrologic cycle, legislation, river basin management, institutional and capacity building and water resources protection.

ELARD has extensive experience in water resource management and an impressive portfolio of projects delivered for national and international organizations, governmental institutions, municipalities and water supply companies. Our engineers, hydrologists, chemists, sociologists and agronomists provide our clients with up-to-date knowledge and hands-on experience in the implementation of water resources management to improve and safeguard our water for the future.

- Policy and Strategy Development
- Institutional Strengthening and Capacity Building
- Master Planning
- Permitting
- Database development and Geographic Information Systems
- Design and Installation of Long-term Water Monitoring System
- Surface Water Modeling
- Watershed & Urban Stormwater Management
- Flood Risk analysis and Management
- Wastewater Reclamation and Reuse Assessment
- Industrial and Domestic Sewage Treatment and Disposal



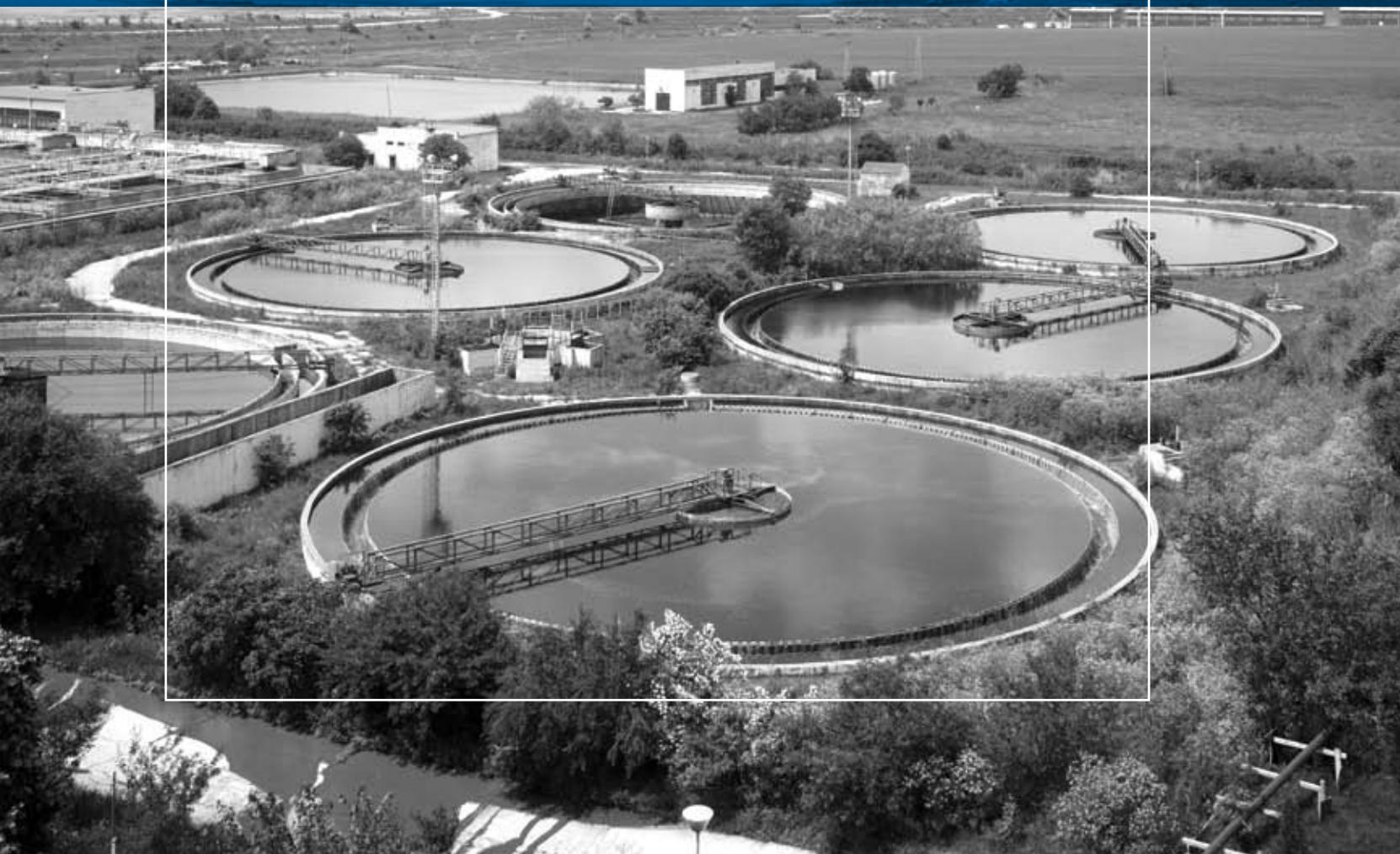
Water & Wastewater Engineering

ELARD provides engineering services to both government and private sector clients since the company began with water and wastewater engineering work. It provides a broad range of professional / technical services from initial project planning and feasibility studies through construction management, project management and operational guidance.

ELARD has the expertise to provide innovative and cost-effective engineering solutions to address the needs of the water, wastewater markets. Water is the lifeblood of our communities, and our expertise ranges from addressing the water resource needs of growing populations, to pipeline, water supply and wastewater network design and other infrastructure (such as dams, treatment plants), to the implementation of emerging technologies to address your most complex issues.

The engineering services provided include:

- Feasibility Studies
- Engineering Design and Tender Preparation
- Construction Supervision
- Engineering Procurement and Construction (for Industrial WWTP)
- Wastewater Reclamation and Reuse Assessment
- Industrial and Domestic Sewage Treatment and Disposal



REPRESENTATIVE CLIENTS

International Development and Financing Agencies



International Engineering & Major Industrial Companies



Oil & Gas



Real Estate Developers



Private office of
HE Sheikh Mohammed Bin
Zayed Al Nahyan

Government / Public Organizations



