

## Handout for Project Confluence Webinar 2: A focus on engineers and scientists

What technical skills or proficiencies do you have?

Skills	Count
Database design	36
Air pollution monitoring	27
Noise monitoring	8
Geospatial analysis	40
Mapmaking	38
Fluid dynamics modeling	11
Cumulative health impact assessments	21
Environmental impact assessments	59
Energy efficiency analysis	21
Simple data analysis	134
Statistical regression analyses	95
Advanced statistical analyses	64
Energy systems modeling	19
Complex ecological systems modeling	18
Water quality testing (general)	57
Water quality testing (lead + copper)	11
Transportation planning and policy analysis	17
Socio-economic modelling	13
Stormwater and green infrastructure design	23
Climate modeling	17
Land use analysis	38
Floodplain mapping and analysis	19
Scenario planning	25
Programming/coding	68
Web development	24
Groundwater quality testing	24
Soil testing	26
Science communication	146
Science of communication	29
ICT infrastructure design	2
Public health analysis	43
Teaching science and engineering to general public	139
Toxicological analyses	12
Epidemiological analyses	24
Occupational safety	21
Data science	46
Energy policy analyses	32
Data visualization	75
Online mapping	15
Meteorological modeling	6
Other, please explain	89
Demographic analysis	33
Chemical analysis	43
Remote sensing	35
Structural analysis	8
Manufacturing systems design	8
Computer-aided design	18
Heat transfer analysis	11
HVAC systems	8
Microgrid design	1

Other skills	Count
Administrative law	1
Advocacy	1
Agricultural policy	1
Brownfield redevelopment +CO2 sequestration	1
Climate advisor	2
Community development	2
Computer science	4
Mental health and psychological counseling	2
Crystal growth	1
STEM curriculum development	1
Development and behavior	1
Digital logic design	1
DNA analysis	1
Ecological analysis	3
Creating scientific graphs and images	1
Electrical engineering	1
Endangered species mitigation	1
Ergonomics	1
Experimental design	1
Field surveys & species status assessments	2
Fisheries science	1
Hazardous and solid waste	1
Physical health and consulting	9
Human-centered design	1
Human studies	1
Indigenous social and cultural impacts	1
International assessment	1
Microbiology	1
Microscopy	1
Museum studies	2
Ocean physics	1
Opioid dependency	1
Opposition research	1
Organizing and organizational skills	1
Printed circuit board & embedded systems design	1
Construction planning & layout, rough and finish carpentry	1
Planning, designing, & O&M of power systems	1
Strategic planning	1
Plant and animal identification	2
Protein design	1
Qualitative analysis	2
100% renewable energy community design	2
Residual gas analysis	1
Resource management	1
Systems thinking	1
Systematic reviews	1
Systems administration	1
Teaching science and engineering to the general public	1
Theoretical physics	1
Translating scientific information for local government	2
Usability	2
Vertebrate fossils and their evolutionary and ecological significance	1

Water resource management + environmental regulations, permits, etc.	-
X-ray diffraction + SEM + rock mechanics and materials	1



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What resources and/or tools do you have available to contribute to community-based projects?

Resources	Count
Maker space	15
Library with access to scientific research and journals	88
Manufacturing space/Fabrication facilities	3
Other laboratory space	7
Computers/Computational resources	76
Sensor technologies	9
Other	58
Software (modelling, analysis, design, etc.)	57
Robots and drones	4
Laboratory analysis (biological, chemical, toxicological, etc.)	23
Remote sensing and imaging	8

Other resources	Count
Curriculum and learning materials	1
Experience	23
Portable geochemical instruments	1
Empty shirt factory that could be location of a new business	1
Field labs	1
Leadership	1
GIS resources	1
Meeting space	3
Native circuitry	1
Small sampling vessel	1
Access to networks and think tanks	2