Guidance on information gathering required to support design during current COVID-19 restrictions

A **runway approach** for assessing projects where there may be some restrictions in gathering information

Stantec

Guidance Notes

This document has been produced to address restrictions on gathering site related information and fieldwork imposed during the current COVID-19 pandemic. The document provides a methodology allowing Stantec staff to assess project information needs and design risks with our clients. It outlines an approach by which any barriers to gathering information can be mitigated and managed through a design risk runway approach allowing, where appropriate, projects to progress.

Whilst this document predominantly identifies the process and approach to be followed when site information can not be obtained, it also acknowledges that there may be situations in which site visits and fieldwork will be possible and authorized. In such cases this document must be read alongside all relevant UK Government, Client and Stantec general site visit protocols and those specifically drafted to deal with COVID-19.

Staff should use this resource as a means to discuss pro-actively with our clients a 'can-do' attitude whilst maintaining an appropriate view on risk and associated governance. The level of technical governance, assessment of risk and health and safety and other related matters will be consistent with our other Operational procedures but it is likely that will have to be tailored to Water Company specific needs.

All projects are subject to our Technical Governance processes, it is even more important at this time that we focus on Technical Governance including our Technical Governance Review processes and checking/review QP17 and 18. The Technical Governance TG0 and TG1 forms are being amended to reflect this guidance note and provide specific elements for reviewers to check are in place to allow projects to efficiently progress. All are encouraged to schedule TG reviews appropriately to ensure that an independent risk review is undertaken to protect our clients, Stantec and our staff. In the case of projects on a amber/red or red runway the approach undertaken must be signed off by an appropriate Discipline reviewer.

All opportunities should be taken to consider means/methods/alternative sources of information to mitigate risks and move projects from a higher risk runway to a lower risk runway.

Guidance Notes

As with any work that we progress we should think clearly about the need and use for information before progressing:

Assess the H&S risks of undertaking site survey or field work

Go-No-Go approval for site-based work

Go

Follow processes for safe planning and undertaking of site-based work **(see pages 9&10)**

No-Go

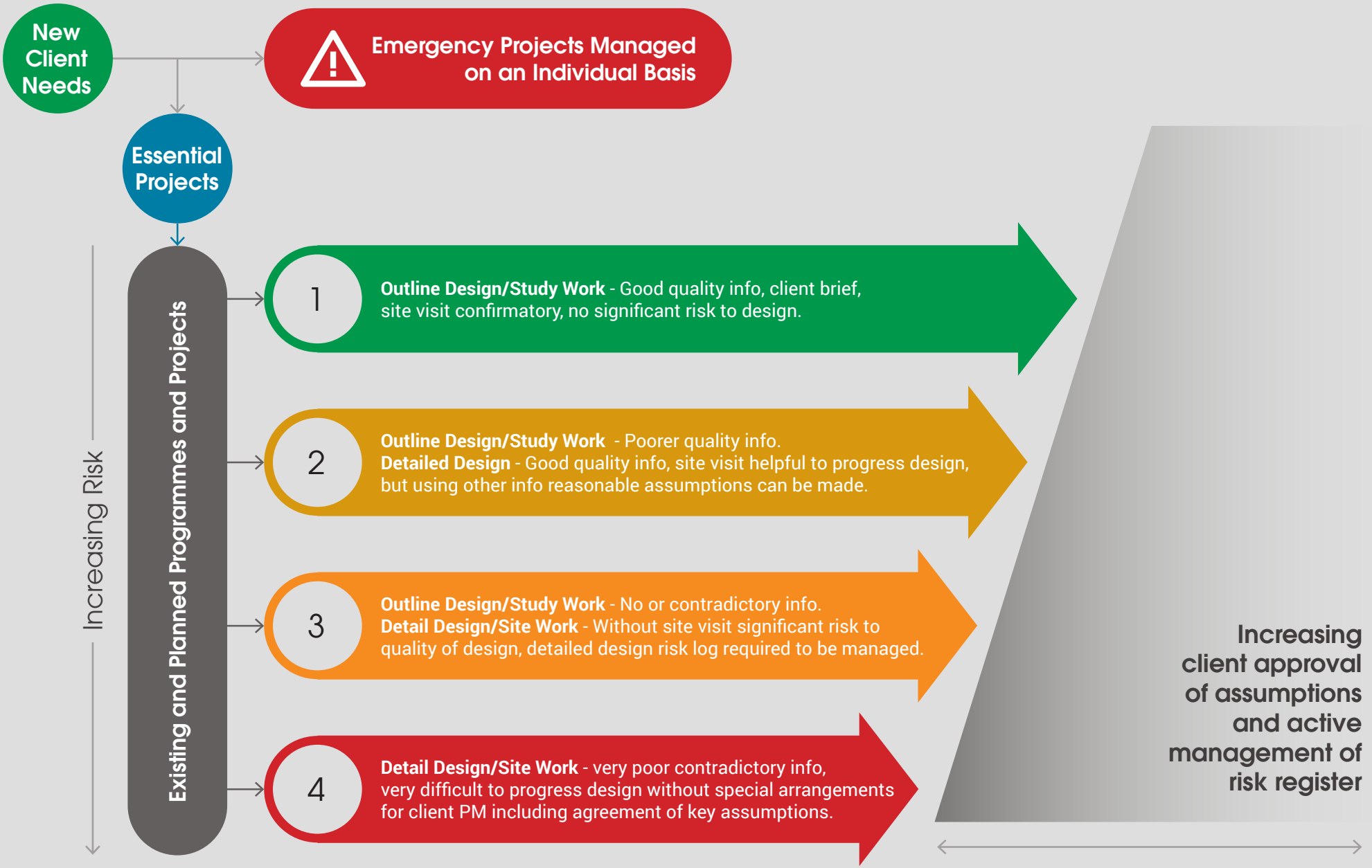
Runway Approach to progressing projects whilst site visits/fieldwork are not possible

Follow Runway Approach to assess and manage the project risks of progressing without the site survey/field work data at this time **(see pages 4&5)**

Contents

This guidance note comprises:

Fieldwork and Gathering other Site Information | Risk Based Runway Approach



Guidance Notes

The schematic considers **four runways** and you should consider what is most appropriate for your project and discuss/agree this approach with your clients - the 4 runways are :

GREEN

Outline Design/Study Work - Good Quality Information, Brief clear -
nothing to inhibit design progression, site visit needs confirmatory - no significant risks.

GREEN/ AMBER

Outline Design/Study Work - Poorer Quality Information/Detail Design/Site Work Good Quality info - Site visit very helpful to progress design, but using existing/other information reasonable assumptions can be made to allow design to progress with some but manageable risks.

AMBER/ RED

Outline Design/Study Work - No Info/Contradictory Info/Detail Design/Site Work - Reasonable Information- Without Site visit significant risks to efficient progression of design, significant assumptions/sensitivity analysis will be required to take design forward and a conservative approach on key elements of project required.

Detail Design/Site Work risk log required which must be managed through project life cycle. Risks associated with progression of design could be significant including a degree of rework.

RED

Detail Design/Site Work - Very poor/no/contradictory information and/or lack of brief. Very difficult to progress project without special arrangements to gain some info on site without support/direction from client PM, including their agreement of key assumptions. In lieu of site visits consideration should be sought to obtain data from site from Operational staff responding to email questions/phone calls/taking photos. Comprehensive risk register and assumption/sensitivity strategy required to be agreed and signed off by client PM. Conservative design approach should be taken with an understanding by the client that a significant element of rework may be necessary.

Guidance on Risk Assessment for Fieldwork and Gathering for other Site Information

Discipline	Required Information	1. Green - Low Risk	2 Green/Amber	3. Amber/Red	4. Red - High Risk
Process Engineering	Asset sizes for process calculations	Data present is thought to be representative of asset base and less than 5 years old. High confidence that assets modified or extended in the last 5 years are represented in the input suite.	Data present for principal assets but with a degree of obsolescence casting doubt on the data, for example in mixing arrangements in anoxic zones, filter media specification. Some doubts that modifications through direct or indirect capital investment in the previous 5 Years have been represented in the data.	Outstanding queries on core units processes for example in residual asset life for filter media or FBDA diffusers. Firm belief that the data set has omitted new assets or modification in the previous 5 years.	High confidence that there is a fundamental absence of or conflict in data for core unit processes for example ASP Dimensions, Filter Media Specification, blower sizing, or digester geometry.
HSSE	Location of high risk services	Comprehensive survey data available from a previous project	Reasonable confidence in location of high risk services	Incomplete knowledge of the location of some of the high risk services such as town gas mains.	Knowledge that the finite location of known high risk services such as above or below ground HV cables is unknown.
Hydraulics	Asset size data	Data present is thought to be representative of asset base and less than 5 years old. High confidence that assets modified or extended in the last 5 years are represented in the input suite.	Gaps in data such as dimensions of critical hydraulic structures such as RAS draw off lines demanding assumptions to be made in the Hydraulic model		
Water Transfer & Distribution Modelling	Model build & calibration field testing	Regulatory DG2 data available with 3 months continuous data stream. Client specifications achievable with a single DG2 point per DMA/DPA.	Client specification requires pressure logging, but which involves no visits to manned sites, and can be achieved via lone working	Client specification requires extensive pressure and flow logging, but on water network assets which may require a two person team	Field testing involves accompanied site visits and two person visits/ access entry.
Urban Drainage Modelling	Asset surveys, flow and water quality surveys. Information from catchment walkovers	DWMP and other planning work where models are being enhanced or used with existing readily available data from client or public sources	Studies e.g. UPM or flooding investigations where verified models requiring flow and key asset surveys or other data e.g. WQ surveys are needed	Feasibility design where confirmation of manhole and sewer details and/ or verified model is critical. Also information on other utility services. See also Civil Infra/Sewer Networks	This would more likely be detailed design work where UDM input is relatively low. See Civil Infra/Sewer Networks
Water Resources (Hydrology and Water Resource Management)	River gauging, rainfall, topography, water use, pipeline locations, asset locations	Most data is desk-based and assessments can be made to enable project completion			Data gaps can exist and physical measurements maybe required for river gauging in catchments with poor records. Water quality and ecological information requires working around water, and is a two-man activity

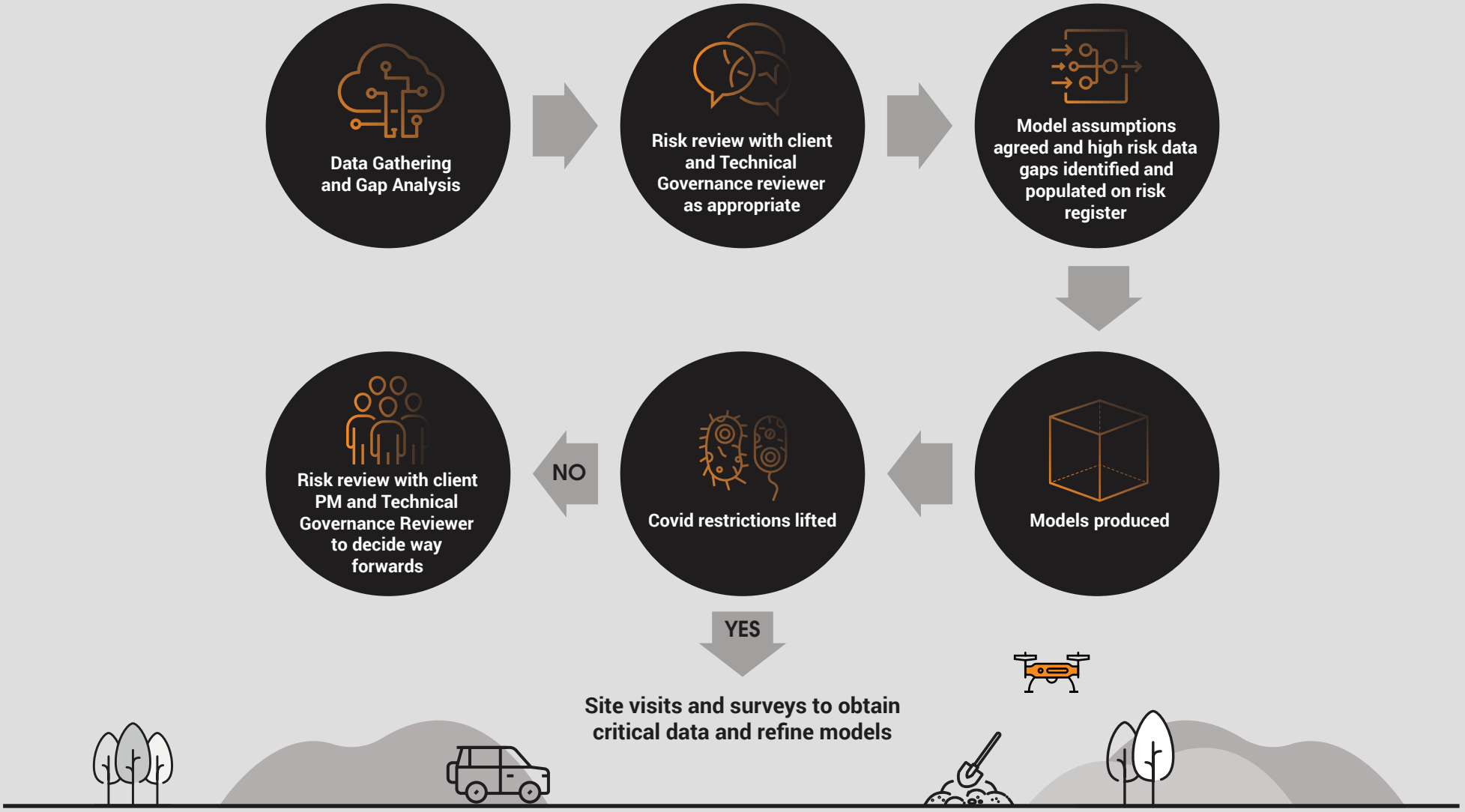
Guidance on Risk Assessment for Fieldwork and Gathering for other Site Information

Discipline	Required Information	1. Green - Low Risk	2 Green/Amber	3. Amber/Red	4. Red - High Risk
Water Resources (Hydrogeology)	Geological succession and structure, borehole construction records, abstraction and discharge records, produced water quality and treatment, water levels, rainfall records, river gauging, water quality information, topography, previous land-uses, current land-use and management, service locations, ecology (aquatic and terrestrial)	Most data is desk-based and assessments can be made to enable project completion. Reasonable confidence in the data.	Client specification requires new data to be obtained. Borehole water levels can be collected by lone worker (with appropriate homebased support and RAMS), and do not require entry onto manned water production sites. Travel distances are short < 1 hr.	Client specification requires new data to be obtained. Borehole water levels can be collected by lone worker (with appropriate homebased support and RAMS), and do not require entry onto manned water production sites. Travel distances are long (>2 hrs). Entry onto unmanned wastewater sites also permitted.	Client specification/project requires new data to be collected to update prior knowledge. Data collection requires working around water, significant travel distances, overnight stays, and entry onto manned water production sites. Third parties are also involved in data collection activities such as borehole drilling.
Dams and Hydro	Ground Investigation and topographical surveys - for earthwork stability assessment	Use previous information complemented by LIDAR and "best estimate" conservative parameters.			
Dams and Hydro	Inspection and Assessment	Essential work endorsed by EA / NRW / SEPA			
Ground Engineering	Publicly available information on site and surroundings from Envirocheck or similar. Pre-existing reports and relevant third party data/analysis. Ground Investigation (GI) for geotechnical properties of soil or rock. GI for nature & extent of contamination in soil, groundwater and potentially other media. Plans of existing and proposed infrastructure. Construction and material movement plans.	Desk-based studies for due diligence, preliminary Site Condition Report, evaluation of risk to construction of below-ground pipelines and infrastructure			Ground investigation using contractors to collect geotechnical and/or geoenvironmental data required to progress works.
SDEC (Ecology)	Vegetation surveys. Protected sp. surveys, habitat assessments, desk based assessment, hydrology, hydrogeology, protected land designations, regulatory opinions, facility and infrastructure plans and mapping	(Outline Design) Work would include desk-based HRA (frequent for SWS), input into EIA, pre-survey mapping and habitat assessment from aerial imagery, access arrangements, land owner discussions. Example work currently underway is for design of compensatory and mitigation habitat for SWS (assoc. with R Test). This will require site works by others to progress to DD.	Site ecological surveys for regulatory compliance/permitting for which short local site visits are required.	Site ecological surveys for regulatory compliance/permitting that require more extensive work, longer trips with multiple personnel, possibly third parties.	Site surveys that require longer term, involved, survey work using third parties to progress detailed design. (though most work would fit in a lower risk category).

Proposal based on no pilot plant or site visits

The schematic below illustrates a process that could be followed on a project that would normally involve a site visit to establish parameters for modelling.

It illustrates how the quality of data is reviewed, gaps in data reviewed and an appropriate process for managing this recorded and agreed to allow model to be produced. This model can have data modified if COVID-19 restrictions are lifted or new information becomes available and a way forward with the project agreed with our client and our Technical Governance protocols.



Go / No Go & Authorisation Protocol

Site / Fieldwork Request

Stantec receive request from Client for Site / Fieldwork Activities to be carried out

Stage 1
Site / Fieldwork Assessment

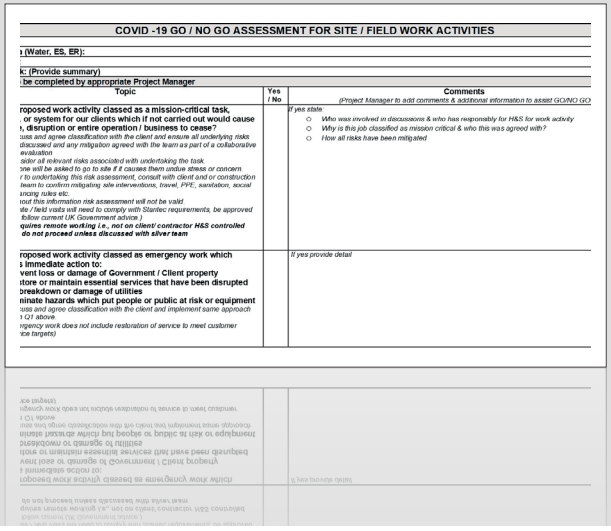
Project Manager to complete assessment form & forward to silver team member for assessment at this stage

Stage 2
Site / Fieldwork Authorisation

Relevant silver team member to issue letter of authorisation to carry our work activity

Stage 3
3 Site / Fieldwork Monitoring

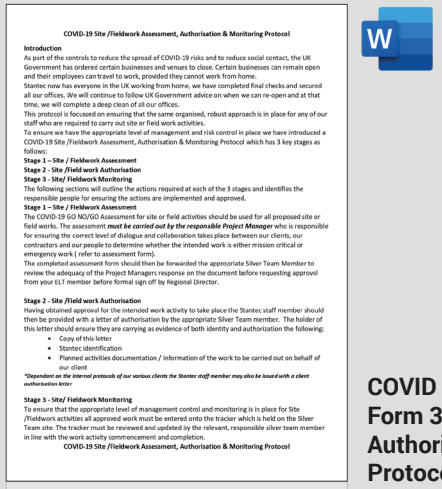
Relevant silver team member to review, update and monitor tracker with work activity details



COVID -19 GO / NO GO ASSESSMENT FOR SITE / FIELD WORK ACTIVITIES

Topic	Yes / No	Comments (Project Manager to add comments & additional information to assist GO/NO GO)
roposed work activity classed as a mission-critical task, or system for our clients which if not carried out would cause , disruption or entire operation / business to cease?		If yes state ○ Who was involved in discussions & who has responsibly for H&S for work activity ○ Why is this job classified as mission critical & who this was agreed with? ○ How all risks have been mitigated
roposed work activity classed as emergency work which s immediate action to: vent loss or damage of Government / Client property tore or maintain essential services that have been disrupted breakdown or damage of utilities minate hazards which put people or public at risk or equipment		If yes provide detail

COVID - 19 Form 1 Go/No Go



COVID-19 Site /Fieldwork Assessment, Authorisation & Monitoring Protocol

Introduction

As part of the controls to reduce the spread of COVID-19 risks and to reduce social contact, the UK Government has ordered certain businesses and venues to close. Certain businesses can remain open and their employees can travel to work, provided they cannot work from home.

Stantec now has everyone in the UK working from home, we have completed final checks and secured all our offices. We will continue to follow UK Government advice on when we can re-open and at that time, we will complete a deep clean of all our offices.

This protocol is focussed on ensuring that the same organised, robust approach is in place for any of our staff who are required to carry out site or field work activities.

To ensure we have the appropriate level of management and risk control in place we have introduced a COVID-19 Site /Fieldwork Assessment, Authorisation & Monitoring Protocol which has 3 key stages as follows:

Stage 1 – Site / Fieldwork Assessment
Stage 2 - Site /Field work Authorisation
Stage 3 - Site/ Fieldwork Monitoring

The following sections will outline the actions required at each of the 3 stages and identifies the responsible people for ensuring the actions are implemented and approved.

Stage 1 – Site / Fieldwork Assessment

The COVID-19 GO NO/GO Assessment for site or field activities should be used for all proposed site or field works. The assessment ***must be carried out by the responsible Project Manager*** who is responsible for ensuring the correct level of dialogue and collaboration takes place between our clients, our contractors and our people to determine whether the intended work is either mission critical or emergency work (refer to assessment form).

The completed assessment form should then be forwarded the appropriate Silver Team Member to review the adequacy of the Project Managers response on the document before requesting approval from your ELT member before formal sign off by Regional Director.

Stage 2 - Site /Field work Authorisation

Having obtained approval for the intended work activity to take place the Stantec staff member should then be provided with a letter of authorisation by the appropriate Silver Team member. The holder of this letter should ensure they are carrying as evidence of both identity and authorization the following:

- Copy of this letter
- Stantec identification
- Planned activities documentation / information of the work to be carried out on behalf of our client

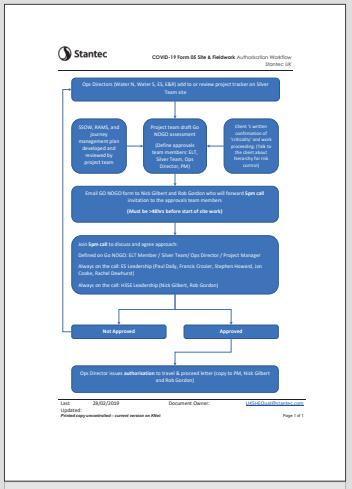
Dependant on the internal protocols of our various clients the Stantec staff member may also be issued with a client authorisation letter

Stage 3 - Site/ Fieldwork Monitoring

To ensure that the appropriate level of management control and monitoring is in place for Site /Fieldwork activities all approved work must be entered onto the tracker which is held on the Silver Team site. The tracker must be reviewed and updated by the relevant, responsible silver team member in line with the work activity commencement and completion.

COVID-19 Site /Fieldwork Assessment, Authorisation & Monitoring Protocol

COVID - 19 Form 3 Authorisation Protocol



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COVID-19 Form 05 Site & Fieldwork Authorisation Workflow
Stantec UK

Ops Directors (Water N, Water S, ES, E&R) add to or review project tracker on Silver Team site

SSOW, RAMS, and journey management plan developed and reviewed by project team

Project team draft Go NOGO assessment (Define approvals team members: ELT, Silver Team, Ops Director, PM)

Client 's written confirmation of 'criticality' and work proceeding. (Talk to the client about hierarchy for risk control)

Email GO NOGO form to Nick Gilbert and Rob Gordon who will forward **5pm call** invitation to the approach team members
(Must be >48hrs before start of site work)

Join **5pm call** to discuss and agree approach:
Defined on Go NOGO: ELT Member / Silver Team/ Ops Director / Project Manager
Always on the call: ES Leadership (Paul Daly, Francis Crozier, Stephen Howard, Jon Cooke, Rachel Dowhurst)
Always on the call: HSSE Leadership (Nick Gilbert, Rob Gordon)

Not Approved | Approved

Ops Director issues **authorisation** to travel & proceed letter (copy to PM, Nick Gilbert and Rob Gordon)

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Printed copy uncontrolled – current version on XRAY

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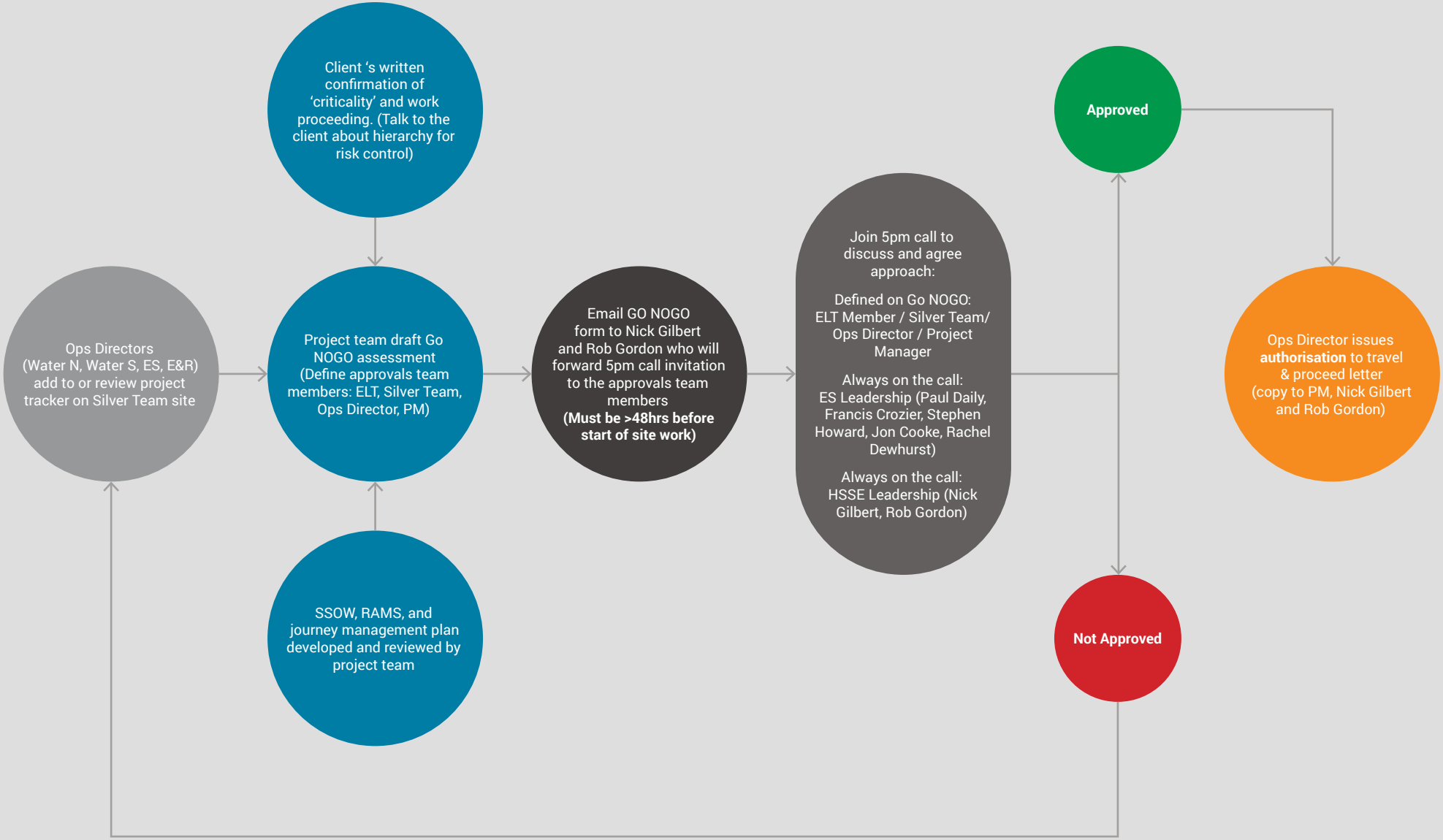
COVID -19 Form 05 Site & Fieldwork Authorisation Workflow

COVID-19 Form 05 | Site & Fieldwork Authorisation Workflow



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Design with
community in mind

Stantec