



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
CENTRAL OFFICE
Manila

097-13 DPWH

06-06-2022

JUN 04 2022

DEPARTMENT ORDER)

SUBJECT: Risk and Opportunity Management

NO. 100)
Series of 2022)
At 4/6/2022)

In connection with the implementation of the Department's Quality Management System (QMS) and its provisions, the DPWH shall determine the risks and opportunities relevant to the context of the organization and to the requirements of the identified interested parties. With this, the Risk and Opportunity Management procedures and pertinent forms are hereby established.

This Order, which supports the QMS requirement on Actions to Address Risks and Opportunities, shall take effect immediately and shall supersede Department Order 44 series of 2019.



ROGER G. MERCADO
Acting Secretary

1.3 JGT/AGC

Department of Public Works and Highways
Office of the Secretary



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1.0 Purpose and Scope

This document aims to provide the standardized guidelines for the identification of risks and opportunities, and the implementation of action plans and evaluation of its effectiveness in all DPWH offices. This guideline covers the principles of site-specific, process-based and data-driven management.

2.0 Definition of Terms

Interested Parties

Individuals or groups who are affected by the successful or unsuccessful delivery of services mandated to the Department of Public Works and Highways (DPWH).

Opportunity

A positive event that could aid in the achievement of the Department's objectives.

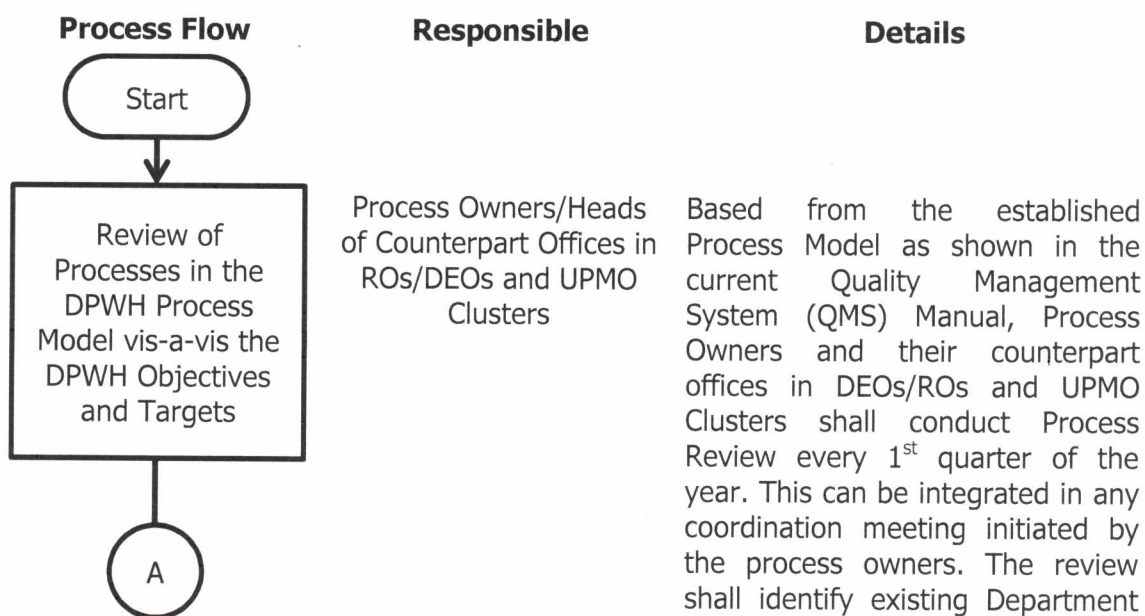
Process Owner

An office (i.e., Bureau, Service or Cluster) or group of offices that has the authority and jurisdiction to standardize the processes that are covered by the QMS. Standardization is made thru issuance of policies, manuals and guidelines.

Risk

A negative uncertainty that may hinder the delivery of the Department's objectives.

3.0 General Procedure





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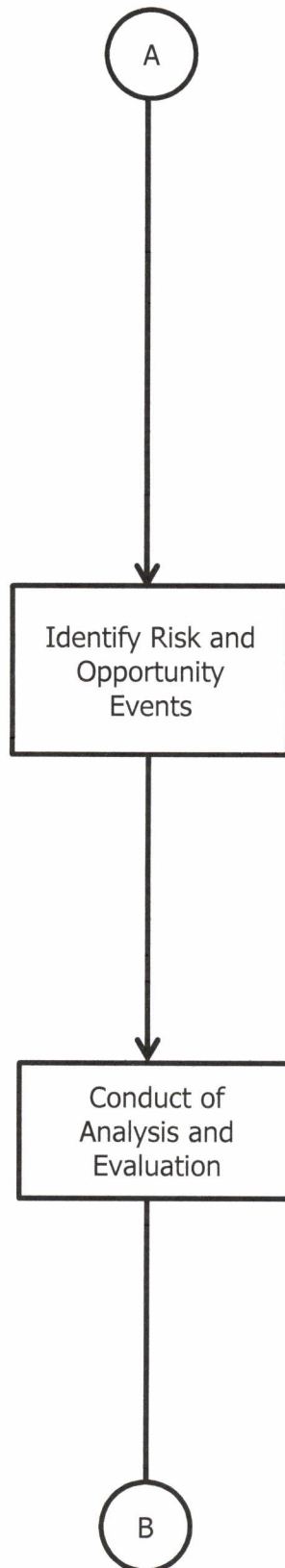
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Process Owners/Heads of Counterpart Offices in ROs/DEOs and UPMO Clusters

Process Owners/Heads of Counterpart Offices in DEOs/ROs and UPMO Clusters

Orders (DOs) that standardize the processes and the encountered issues in implementation. Once all DOs have been accounted, process owners and their counterpart offices in ROs/DEOs and UPMO Clusters shall revisit Department objectives (i.e., Strategic, Operational, Whole-of-Government) and obtain the established targets from the Performance Governance System (PGS) Scorecard, Strategic Performance Management System (SPMS) Forms and/or any policy pronouncements of the Secretary.

Once targets are identified, the process owners and their counterpart offices in ROs/DEOs and UPMO Clusters shall verify the Interested Parties affected by the process/targets, and countercheck the Treatment Method using the established Relevant and Interested Parties Matrix (Annex A). If the treatment method calls for risk/opportunity assessment, then risk/opportunity events shall be generated.

Risk/Opportunity Events for every major process shall be analyzed in terms of likelihood and severity/benefit rating based on data. Quantitative data (i.e., Baseline Frequency, Probabilistic Modeling, and Forecasting) shall be generated using the PGS accomplishment, SPMS indicators or any monitoring tool utilized by the process owners. To utilize the site-specific principle of risk/opportunity management, each counterpart office may generate a different assessment of



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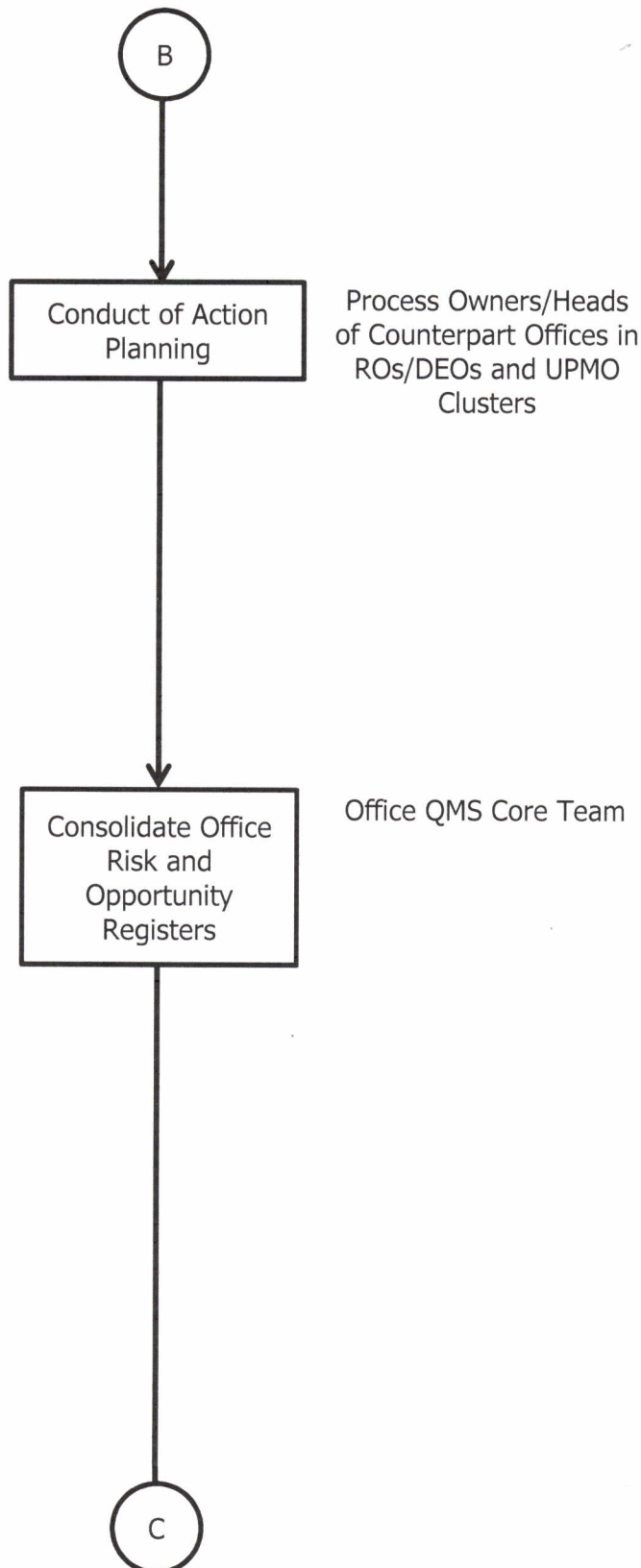
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the risk/opportunity event based on the likelihood thru various methods (e.g. Root Cause Analysis (RCA), SWOT, etcetera). However, the process owner shall account all events for inductive analysis and further prioritization.

Action plans and timelines shall be identified to address the risk/opportunity events, based on the risk/benefit factor. The action plans shall be within the influence, capacity and authority of the office (counterpart or process owner) to implement. In the case of the process owners, they shall oversee the approval of the action plan based on feasibility and impact to the risk/opportunity event, and consolidate action plans that can be elevated into a policy.

Once action plans and its timelines have been agreed upon with the Process Owners, each office (i.e. District Engineering Office, Regional Office, UPMO Clusters, Bureaus and Services) shall consolidate all prioritized risk and opportunity events of all divisions/sections.

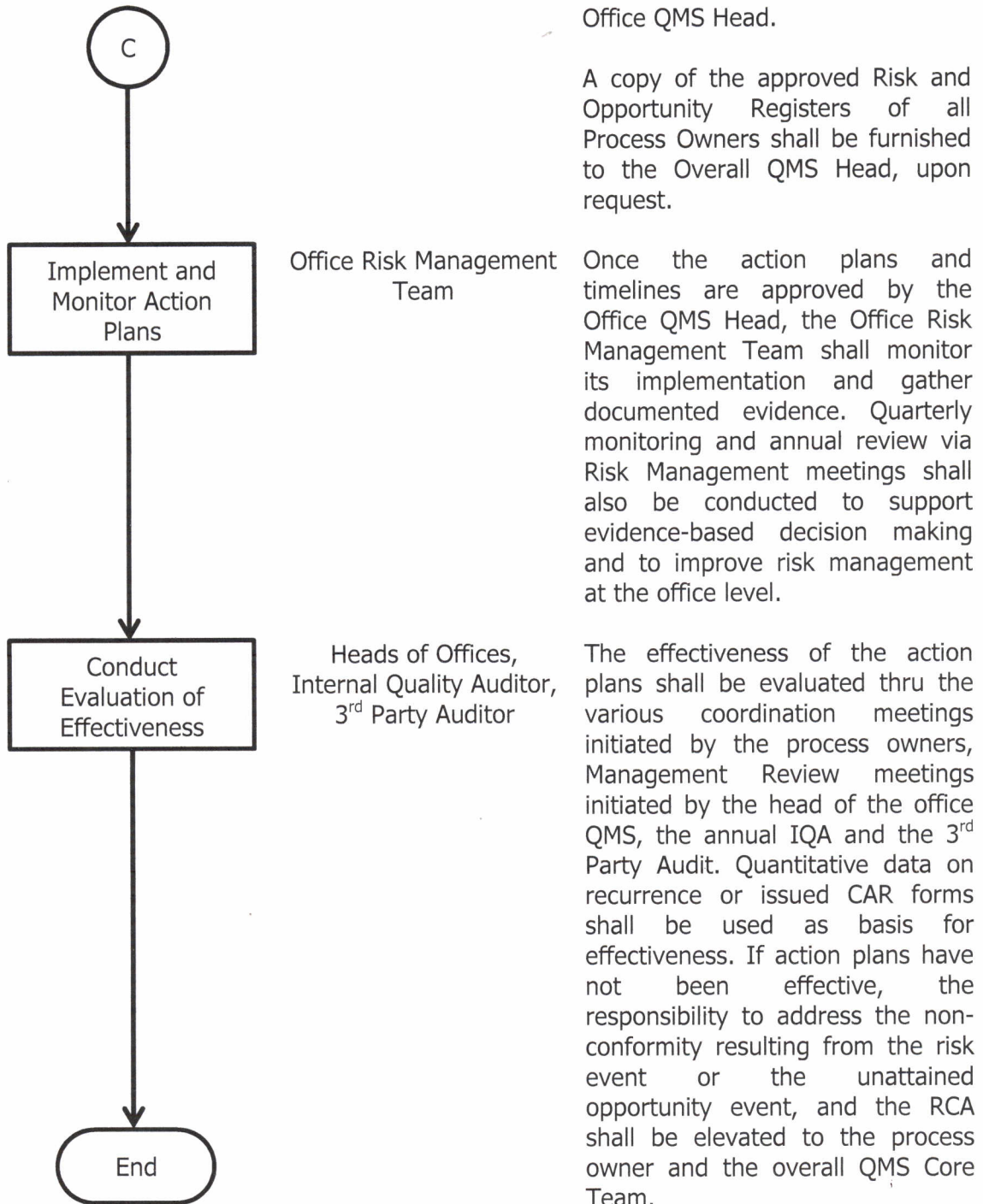
For Risk Events:

The Risk Register (Annex B) shall be utilized.

For Opportunity Events:


The Opportunity Register (Annex C) shall be utilized.

Both forms shall be reviewed by the Office QMS-Core Team Leader and subsequently approved by the



4.0 References

ISO 9001:2015 Standards

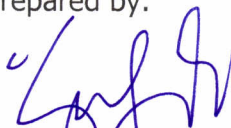
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5.0 Attachments

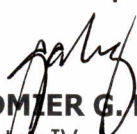
(Annex A) Relevant and Interested Parties Matrix
(Annex B) Risk Register
(Annex C) Opportunity Register

6.0 Approval


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Planning Officer IV
Team Leader, Overall QMS Secretariat

Reviewed by:


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Department of Public Works and Highways
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Relevant Interested Parties Matrix

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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
General Public Motorists Pedestrians Civil Society Organizations	External	Beneficiaries of infrastructure project	Expect high quality infrastructure & services	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment 	Risk	Core Processes	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review
			Provide protection to lives and properties			Core Processes		
		Tax Payer/Road User Tax Payer	Expect on-time delivery of projects and services	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment 	Risk	Core Processes, Procurement Management, Legal Services	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review
			Ensure safety on the use of infrastructure			Core Process		
			Ensure environmentally compliant projects and infrastructure	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment 	Risk	Core Processes	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review
			Regulatory Compliance			Core Processes, Procurement Management, Legal Services		



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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
General Public	External	Beneficiaries of infrastructure project	Preference to hire local residents	<ul style="list-style-type: none"> • Legal • Social • Economic 	Mixed	Core Processes, Human Resource Management	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review
Civil Society Organizations	External	"Watchdog" (refer to Ra9184)	Expect organization to be a "good example" locally	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment 	Risk	Core Processes, Procurement Management	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review
Contractors	External	<ul style="list-style-type: none"> • Contract Awardee • Builders 	Expect fair competitive public bidding	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment 	Mixed	Core Processes, Procurement Management	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review • Internal Quality Audit
			Expect prompt payment of claims		Risk	Core Processes, Financial Management	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit



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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
			Expect fidelity in the legal norms/issuances/contracts		Mixed	Core Processes, Financial Management, Legal Services	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review • Internal Quality Audit
Consultants	External	<ul style="list-style-type: none"> • Contract Awardee • Service Provider 	Expect fair competitive public bidding	<ul style="list-style-type: none"> • Legal • Social • Economic 	Mixed	Core Processes, Procurement Management	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review • Internal Quality Audit
			Expect prompt payment of claims		Risk	Core Processes, Financial Management	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit
			Expect fidelity in the legal norms/issuances		Mixed	Core Processes, Financial Management, Legal Services	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review • Internal Quality Audit



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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
Suppliers	External	<ul style="list-style-type: none"> Contract Awardee Goods and Services Provider 	Expect fair competitive public bidding	<ul style="list-style-type: none"> Legal Social Economic 	Mixed	Core Processes, Procurement Management	High	<ul style="list-style-type: none"> Opportunity and Risk Assessment Management Review Internal Quality Audit
							High	
			Expect prompt payment of claims		Risk	Core Processes, Procurement Management	High	<ul style="list-style-type: none"> Risk Assessment Management Review Internal Quality Audit
							High	
			Expect fidelity in the legal norms/issuances		Mixed	Core Processes, Financial Management, Legal Services	High	<ul style="list-style-type: none"> Risk Assessment Management Review Internal Quality Audit
							High	
Business Sectors	External	Encourage investments	Quality and safe public infrastructure	<ul style="list-style-type: none"> Legal Social Economic Environment 	Mixed	Core Processes	High	<ul style="list-style-type: none"> Opportunity and Risk Assessment Management Review Internal Quality Audit
			Properties / businesses protected from natural disasters			Core Processes		



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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
Concessionaires	External	Private proponent for PPP Projects	Expect more implementation of solicited and unsolicited projects	<ul style="list-style-type: none"> • Legal • Social • Economic 	Mixed	Core Processes, Legal Services	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review
			Expect timely delivery of Right-of-Way	<ul style="list-style-type: none"> • Legal • Social 	Risk	Core Processes, Legal Services	High	<ul style="list-style-type: none"> • Risk Assessment
			Expect regular monitoring of Key Performance Indicators	<ul style="list-style-type: none"> • Legal • Economic 	Mixed	Core Processes	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment
Local Government Units	External	Recipient of products and services	Expect Infrastructure Projects to be implemented	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment • Political 	Risk	Core Processes	Medium	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit
			Expect compliance with all regulations			Core Processes	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit



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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
			Expect on time delivery of project			Core Processes	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit
Government Agencies	External	Recipient of products and services	Expect compliance with all regulations	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment • Political 	Risk	Core Processes	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit
			Expect on time delivery of project			Core Processes		
			Expect implementation of projects that would complement their projects			Core Processes		
Funding Agencies	External	Source of fund	Expect delivery of project within the approved project cost	<ul style="list-style-type: none"> • Legal • Social • Economic • Environment • Political 	Risk	Core Processes	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit
			Expect on time delivery			Core Processes		



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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
			Expect compliance with all guideline			Core Processes		
Management Committee	Internal	Sets the policy directions and targets of the Department	Expect realization of the outcomes of the DPWH Strategy and identified long term strategies	<ul style="list-style-type: none"> • Values • Culture • Knowledge • Performance 	Mixed	All Processes	High	<ul style="list-style-type: none"> • Risk Assessment • Management Review • Internal Quality Audit
			Expect compliance to policies		Risk	All Processes		
			Expect compliance with the requirements of ISO 9001:2015 Standards		Opportunity	All Processes		
Middle Management	Internal	Implements the policy directions and targets of the Department	Ensure provision of adequate resources (Human Resource, Finance, Equipment, etc.) to produce the required outputs	<ul style="list-style-type: none"> • Values • Culture • Knowledge • Performance 	Mixed	Human Resources Management, Physical Resources Management, Information Management	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review • Internal Quality Audit



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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
		Operationalizes the core and support processes	Ensure a more organized and responsive workforce	<ul style="list-style-type: none"> • Values • Culture • Knowledge • Performance 	Mixed	Human Resources Management	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review • Internal Quality Audit
Personnel	Internal	Service delivery of the required output	Deliver quality of performance	<ul style="list-style-type: none"> • Values • Culture • Knowledge • Performance 	Mixed	Human Resources Management, Information Management	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment • Management Review • Internal Quality Audit
			Expect appropriate learning & development programs		Opportunity	Human Resources Management	Medium	<ul style="list-style-type: none"> • Opportunity Assessment • Management Review • Internal Quality Audit
		Employee engagement	On time salaries and wages and benefits	<ul style="list-style-type: none"> • Performance • Knowledge • Values 	Mixed	Human Resources Management, Financial Management	High	<ul style="list-style-type: none"> • Opportunity and Risk Assessment

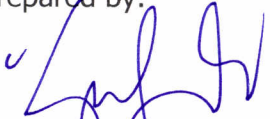


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Interested Party	Type	Reason for Inclusion	Needs and Expectations	Factor	Bias	Affected Process(es)	Priority	Treatment Method
			Conducive environment for the operation of processes	• Culture		Human Resources Management, Physical Resources Management, Information Management		• Management Review • Internal Quality Audit

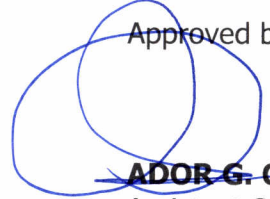
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Department of Public Works and Highways
Quality Management System

RISK REGISTER

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The ISO 9001:2015 Standards requires that organization shall plan actions to address risks and opportunities to (a) integrate and implement the actions into its quality management system processes; (b) evaluate the effectiveness of these actions. This shall be proportionate to the potential impact on the conformity of products and services.

LIKELIHOOD (L) MATRIX

Score	Category Name	Likelihood
1	Low/Remote	Unlikely or rare; qualitative data indicates low probability or decreasing frequency; the risk is seen as unlikely to occur within the time frame expected in the objective
2	Medium/Possible	Likely to occur; qualitative data indicates neither decreasing or increasing frequency; the risk is seen as often to occur within the time frame expected in the objective
3	High/Probable	Very likely to occur; qualitative data indicates high probability or increasing frequency; the occurrence of the risk has been observed by the majority of offices.

SEVERITY (S) MATRIX

Score	Category Name	Severity
1	Low/Remote	The risk will not substantially impede the achievement of the objective, causing minimal damage to the organization's reputation.
2	Medium/Possible	The risk would cause some elements of the objective to be delayed or not to be achieved, causing potential damage to the organization's reputation.
3	High/Probable	The risk will cause the objective to not be achieved causing damage to the organization's reputation.

RISK PRIORITIZATION/FACTOR (RF)

LIKELIHOOD	SEVERITY			
		1	2	3
	1	Tolerable (1)	Tolerable (2)	Substantial (3)
	2	Tolerable (2)	Substantial (4)	Extreme (6)
	3	Substantial (3)	Extreme (6)	Extreme (9)

Category Name	Priority Description
Tolerable (Low)	No additional controls are required. Monitoring is required to ensure current control is maintained to prevent risk from manifesting.
Substantial (Medium)	Efforts and actions are required to reduce risk. Controls need to be implemented within a specified time. Considerable resources are required.
Extreme (High)	Process shall be closely monitored. Policy may be subjected to immediate review and updating. Department-wide interventions may be required.



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RISK REGISTER

Process	Risk Event	L	S	RF	Action Plan	Responsible
<p><i><select any of the major processes in the DPWH process model. One process per row entry only. For Support Processes, indicate first the general process then followed by the specific process, separated by a colon></i></p> <p>Ex: Research and Development: New Product/ Technology Evaluation and Accreditation</p>	<p><i><'Negative outcome' due to 'negative output'></i></p> <p>Example: Non-accreditation of new construction materials and technologies due to lack of advanced testing equipment and reference materials</p>	<i>Refer to Likelihood Matrix</i>	<i>Refer to Severity Matrix</i>	<i>Refer to Risk Prioritization/Factor Matrix</i>	<p><i>What are your actions and timelines to address the risks identified?</i></p> <p><i>Actions in addressing the risk may include:</i></p> <ul style="list-style-type: none"><i>- Reduce the occurrence of the risk</i><i>- Eliminate the risk source</i><i>- Sharing the risk</i>	<p><i>Who will be responsible in implementing and documenting the Action Plan?</i></p>

Prepared by:

Reviewed by:

Approved by:

<Name>

Team Leader,
Office QMS Risk Management

<Name>

Team Leader,
Office QMS Core Team

<Name>

Head,
Office QMS



Department of Public Works and Highways
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OPPORTUNITY REGISTER

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Opportunities can lead to the adoption of new practices, launching new products, opening new markets, addressing new customers, building partnerships, using new technology and other desirable and viable possibilities to address the organization's or its customer needs. Action Plan is required for Benefit Factor ≥ 4 . Action Plan is required if regulatory or statutory requirement.

LIKELIHOOD (L)

Score	Category Name	Likelihood
1	Unlikely	Some chance of favorable outcome in 4 or more years
2	Likely	Reasonable prospects of favorable results in 1 to 3 years
3	Very Likely	Favorable outcome is likely to be achieved in 1 year

BENEFIT RATING (BR)

Score	Category Name	Indicators
1	Low	Possible opportunity that has yet to be fully investigated by management. Likelihood of success is low on the basis of management of resources currently being applied.
2	Medium	Opportunity that may be achievable but requires careful management. Opportunity that may arise over and above the plan.
3	High	Clear opportunity that can be relied upon with reasonable certainty to be achieved in the short-term based on current management processes.

BENEFIT FACTOR (BF)

LIKELIHOOD	BENEFIT RATING			
		1	2	3
	1	Latent (1)	Latent (2)	Substantial (3)
	2	Latent (2)	Desired (4)	Desired (6)
	3	Substantial (3)	Desired (6)	Desired (9)

Category Name	Priority Description
Latent (Low)	No additional controls are required. Monitoring is required to ensure the emergence of the opportunity.
Substantial (Medium)	Efforts and actions are required to achieve the benefit. Controls need to be implemented within a specified time. Considerable resources are required.
Desired (High)	Process or project shall be prioritized to be implemented for continuity. Breakthrough Results shall be accounted.



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OPPORTUNITY REGISTER

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Process	Opportunity Event	L	Benefit	BR	BF	Action Plan	Responsible
<i><select any of the major processes in the DPWH process model. One process per row entry only. For Support Processes, indicate first the general process then followed by the specific process, separated by a colon></i> Ex: Project Implementation	<i><Positive outcome from the implementation of the process ></i> Ex: Improved reporting of project accomplishments	<i>Refer to Likelihood Matrix</i>	<i><State the resulting benefit that could support advancement/ progress in attaining the process' objectives.></i>	<i>Refer to Benefit Rating Matrix</i>	<i>Refer to Benefit Factor Matrix</i>	<i><What are your actions and timelines to achieve the identified Benefit?></i>	<i>< Who will be responsible in implementing and documenting the Action Plan?></i>

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