Annex A - Summary of Responses to the Questions

Set out below is a detailed summary of the outcome from the National Risk Assessment NRA) Reasonable Worst Case Scenario (RWCS) Workshop on 8 and 11 July 2014.

Current Approach

Discussion Point 1

1. What are the key strengths of the RWCS approach?

- Provides context, clarity and Identifies risk boundaries to enable effective planning – further detail is not required for the purposes of the NRA
- Pragmatic approach which reflects the purpose of the NRA
- Flexibility – the broad approach allows for tailored expert judgment to be applied to risks
- Does not constrain risk owners and focuses minds
- **Consensus is built into the process**
- **Underpins effectively capability building and emergency response planning****
- **It is easily explained**
- **It is proportionate for investment and planning**
- It incorporates contributions from science and policy areas within departments
- Aids exercising
- Helps facilitate a common discourse (facilitates consensus)
- Allows consistent prioritisation of risks
- It works well and we know how to do it (including translating it into specific preparedness actions/resilience measures)
- It is simple
- It provides simple common language accessible by non-experts
- Good communication tool (including explaining contingency plans to ministers)
- Provides enough detail to identify what capabilities are needed to manage the situation
- Helps users understand key challenges facing their department/organisation

2. What are the key weaknesses of the RWCS approach?

- Communication of the purpose of the NRA and why we use the RWCS needs strengthening at national and local levels
- Fixation on specific scenarios – lack of flexibility (tunnel vision). Also the scenarios can be misleading as to the effects
- Lack of ranges and is not exhaustive (e.g. London centric)
- Vulnerabilities are not integrated well enough
- Upper impacts are not identified
- Over reliance on historical data (only covers short periods)
- Does not incorporate community resilience
- Focus is on single events – concurrency is not covered
- Does not help Local Resilience Forums plan for less impactful scenarios
- Escalation is not recognised neither does it capture progress (e.g. where things are getting better)
- "Reasonable" aspect is too subjective
- Current timescales (5 years) is too short to accurately capture the true outcomes
- Different views on what we mean by the terms
- Underestimates impacts
- **Gaps between national & local analysis**
- Cascading failures are not included
- Different approach to other risks (ie industrial accidents risk modelling does not match the RWCS methodology)
- Concerns about the "broad brush" nature of it
- Not good at translating it into action
- Challenges with incorporating empirical evidence (where do the expert's assumptions come from)
- Not very good at exploring causes very well

- Thresholds for aggregation of scenarios not entirely clear (when do various scenarios get rolled into a single one?)
- More problems on the natural hazards/accidents
- Weakness understanding emerging risks (brining everyone to the table)
- **Inconsistent definition of what is reasonable**
- Doesn't capture alternative scenarios which may be important to consider (eg most likely)
- Historical evidence does not always provide the best RWCS
- tunnel vision (focused on one scenario and forget the context)
- reasonable is a judgement call
- 5 years is too short (a lot of the impacts with CBRN have longer lifetimes)
- not good at assisting local actors to consider less impactful more likely events

3. How can we improve/complement the RWCS approach?

- Use of a range or set of scenarios
- More of a focus on vulnerabilities rather than on scenarios – in particular include social vulnerabilities (linked to hazards)
- Greater focus on less likely more impactful events
- Incorporate compounded effects accumulating locally into bigger impacts (bottom up approach)
- Map community resilience resources
- Better use of data and analysis to underpin risks e.g. use of longer historic data
- Consider using scales that incorporate "normal to worst"
- Scalability – use a range of impacts to include regional variations
- Consider adopting approach used by Lloyd's market covering "uncertainty" rather than likelihood
- Provide the detail underpinning the RWCS assessment and be more explicit re-the level of uncertainty
- Being more explicit re-subjectivity e.g. always state whether the evidence is intelligence, historical or intelligence
- Enhancing the work on interdependencies
- Consider including concurrency (particularly cascading events)
- Compile a catalogue of "unforeseen consequences" of past disasters
- Improve the assessment of governments flexibility in managing risks and responding to emergencies
- Greater focus on "what do we want to prevent" - the answer will depend on a mixture of science, common sense and interpretation of culture
- Consider incorporating persistent risks e.g. drug trafficking etc
- Consider expanding the level of detail on certain risks on a selective basis e.g. high impact risks
- Widen parameters of impact to interplay with geographical information covering where the risk occurs (additional "local colour")

- Forecast impacts over 5 year period
- Volcanic eruptions not
- Widen focus on what could happen
- Exploit data to enhance analysis
- Understanding scalability of capabilities and resources (to help identify gaps in preparedness)
- Include information about the "volume of background noise" (current picture, steady state or base levels)
- Looking at risk interrelations and cascading effects (starting with looking at "risk bundles")
- Exploring context / risk variants (very likely lower impact or very high impact low likelihood risks)
- Including information about chronic / long term effects
- Factoring in impacts of the response / lack thereof (how the response interacts with the impact of the event itself, particularly relevant for psychological impacts)
- Rank / scale levels of preparedness/vulnerabilities (having the National Capabilities Survey feeding into the NRA)
- **Make it clear that concurrent events can be included in the NRA**
- More guidance on definition of reasonable and acceptable methodologies
- To include "most likely" - understand the spectrum of risks and their distribution
- Focus on specific categories of risks (map it and be clear about outcomes and benefits)-outcomes to do with risk reduction and greater transparency around uncertainty

4. **What would the benefits be of incorporating the changes set out in paragraph 3?**

- Will enable longer term horizon scanning to facilitate drivers fro change
- More effective planning
- Raise visibility of issues
- Increase reliability of scenarios
- Limit the spread of consequences

- Provide a richer picture
- Help better prioritise risks to look at for the NSRA
- Better understanding of impact / preparedness
- Helps check the usefulness/adequacy of planning assumptions
- Helps breakdown the possible optional scenarios
- Provide greater consistency by defining reasonableness better and by expanding on when to include data on concurrency

5. **What would the drawbacks of incorporating the changes set out in paragraph 3?**

- **Greater resource requirement to compile additional information**
- Prioritisation and planning will be more difficult at national and local levels if changes are too varied and complex
- Potential loss of focus
- Risk of diluting the NRA
- Vulnerabilities are more difficult to plan for without scenarios
- Enhanced methodology could be more time consuming
- Lack of adequate data to underpin new developments
- Local level risk occurring simultaneously in different locations
- Makes the NRA more complex
- The alternative scenarios are sometimes poorly understood
- For some risks there would be little beyond expert judgement to help build alternative scenarios
- The models are only as good as our data
- Resistance to change might lead to loss of buy-in
- Results might not be aligned with political priorities/risk appetites

Alternatives to the Current Approach

6. What are the credible alternatives to the RWCS?

- Adopting a purely qualitative approach
- Adopting a purely historical approach
- For hazards consider use of impact and vulnerabilities instead of impact and likelihood
- **Community vulnerability assessment**
- Mapping community resilience resources
- Adopting a probabilistic approach
- Looking at worst case scenarios
- Looking at average scenarios
- Looking at a range of scenarios for each risk
- Employing loss prediction models (using probabilistic exposure management models like the ones used by the insurance industry)
- Bottom-up approach

7. What would be the benefits of replacing the RWCS with these alternatives?

- Highlights vulnerabilities and helps identify gaps better
- Moving the impact threshold up could help drive more exhaustive preparedness

8. What would be the drawbacks of replacing the RWCS with these alternatives?

- Lack of additional resource to do the extra work
- Lack of consensus
- Can't put a probability against all risks
- Moving the impact threshold up could make treating all risks not affordable
- Only looking at worst case scenarios would lead to trying to do risk elimination and not risk treatment
- Range of scenarios might not be helpful for local planners to understand where their local risks might fit within the range
- Looking at absolute worst case scenarios could paralyse responders