



EPA
VICTORIA



Review and amendment of the Environment Reference Standard

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EPA acknowledges Aboriginal people as the first peoples and Traditional custodians of the land and water on which we live, work and depend. We pay respect to Aboriginal Elders, past and present.

As Victoria's environmental regulator, we pay respect to how Country has been protected and cared for by Aboriginal people over many tens of thousands of years.

We acknowledge the unique spiritual and cultural significance of land, water and all that is in the environment to Traditional Owners, and recognise their continuing connection to, and aspirations for Country.



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Abbreviations

Act	<i>Environment Protection Act 2017</i>
ASD	Applied Science Directorate
CES	Chief Environmental Scientist
DELWP	Department of Environment, Land, Water and Planning
ELT	Executive Leadership Team
EPA	Environment Protection Authority
ERS	Environment Reference Standard
ERSTAG	Environment Reference Standard Technical Advisory Group
PRU	Policy and Regulation unit
TAG	Technical Advisory Group

Purpose

This publication outlines the process for review and amendment of the Environment Reference Standard (ERS). It provides information regarding the role of the Environment Protection Authority Victoria (EPA), the supporting ERS Technical Advisory Group and a Forward Plan for ERS review and amendment.

The Environment Reference Standard

The purpose of the ERS is to set environmental values, indicators, and objectives for the community, in a clear and accessible way, to help us achieve and protect the environmental outcomes sought by all Victorians. The ERS describes the environment in terms of the features that we value to allow a range of important uses and to protect the environment and human health from the impact of pollution and waste. Simply, it describes the desired state. For example, the ERS may describe the quality of water for its use as a drinking source, or as a place to swim in, as being environmental values.

ERS is made up of objectives for supporting different uses, and indicators that tell us whether those objectives are being met. Each standard specifies the location within Victoria that it applies to. This means that a provision in the ERS may apply only to a specific location, for example, Port Phillip Bay, or to the whole of Victoria.

The ERS comprises:

Environmental values, which are uses, attributes or functions of the environment that are sought to be achieved or maintained (for example, air quality that supports human health and wellbeing); and

Indicators and objectives, which are scientific or technical indicators and outcomes that are used to measure whether an environmental value is being achieved/maintained or is at risk.

ERS will assist in assessing and reporting on current environmental conditions, and changes in those conditions over time, creating a set of benchmark values.

Using the ERS

The *Environment Protection Act 2017* (the Act) and other Victorian legislation requires that the ERS be considered when making certain statutory decisions, including in the following circumstances:

- The Minister must consider the ERS when determining whether to recommend the making of regulations under the Act, recommend the making of a compliance code, or declare an issue to be an issue of environmental concern.
- EPA must consider the ERS when determining whether to issue a development, operating or pilot project licence, when reviewing operating licences and when deciding whether or not to issue development and operating licence exemptions and prescribed permits.
- An environmental auditor must have regard to the ERS, where relevant, when carrying out any function of an environmental auditor.
- A responsible authority under the *Planning and Environment Act 1987* may consider the ERS, where relevant, when considering an application for a planning permit.
- The Tribunal must consider the ERS, where relevant, when determining a range of applications for review.

The ERS can also be used in a range of circumstances to promote the protection of the environment and human health, including:

- promoting a shared understanding within the Victorian community of valued attributes of the environment and encouraging a sense of common purpose in achieving or maintaining these values
- providing for consistency in monitoring and reporting on environmental conditions. Consistency in reporting of information enables people to make well-informed choices about their use and enjoyment of the environment and allows for easy comparison to track changes in environmental condition over time
- providing a consistent set of indicators and objectives for use in environmental management plans and strategies
- assisting in the provision of consistent and robust advice and decisions by EPA to the community. The ERS is an authoritative declaration by EPA about what constitutes value in the environment and the objectives and indicators necessary to support such values. In certain circumstances, they will provide an evidence-base, which will assist in articulating the consequences of risky activities.

Review of the ERS

In accordance with the Act, the ERS must be reviewed in its entirety every 10 years. However, it can also be reviewed when new knowledge becomes available, such as when our understanding of risks of harm change.

EPA's Forward Plan for developing and amending ERS is described later in this document.

10-yearly review of ERS

The Act sets up a process for reviewing the ERS every 10 years. To review a standard, the Minister must ensure that a public notice of review is published which:

- summarises the ERS

- specifies where a copy of the ERS can be obtained
- invites public comment or submissions for a minimum of 28 days.

After considering public comments the Minister must make a determination to revoke the ERS or retain it, with or without amendment.

Review of the ERS outside of the 10-year cycle

Section 94 of the Act adapts the usual legislative process for developing legislative instruments so that it applies appropriately to the ERS. Instead of a regulatory impact statement, an impact assessment must be prepared in accordance with section 95(1) of the Act. There are some exceptions to when an impact assessment will be required, and these are set out in the *Subordinate Legislation Act 1994*. This adapted process applies when developing a new ERS and updating an existing ERS.

Section 95(1) of the Act specifies that an impact assessment for a standard must contain:

- the objectives and purposes of the standard
- a description of the methods used to prepare the standard
- any indicators and objectives for measuring whether environmental values are being achieved or maintained, other than those specified in the standard, that were considered during the preparation of the standard
- a description of the monitoring, evaluation, and reporting requirement of the standard
- a description of the intended operation and impact of the standard.

Consultation on a new ERS or an amended ERS and the corresponding impact assessment must be conducted in accordance with the requirements of the Subordinate Legislation Act and the associated guidelines. Initial consultation must occur with every Minister whose area of responsibility may be affected, and formal public consultation must occur with all sectors of the public on which a significant impact may be imposed. Formal public consultation is for a minimum of 28 days, but at least 60 days is best practice. When developing an ERS, the human rights impacts must be considered in accordance with Victoria's Charter of Human Rights and Responsibilities, as must the climate change impacts in accordance with the *Climate Change Act 2017*.

The role of EPA

In the development and amendment of the ERS it is the role of EPA to ensure appropriate information is provided to the relevant Minister(s) and Governor in Council to satisfy the requirements of the Act.

An ERS Technical Advisory Group (ERSTAG) supports EPA in its decision-making on periodic updating of the ERS and for the comprehensive 10-yearly reviews. The role of the ERSTAG is to provide independent, high quality, technical and evidence-based advice on matters of the ERS. This includes:

- whether the environmental values, indicators and objectives set out in the ERS are and continue to be appropriate
- options to revise and refine the environmental values, indicators, objectives and segments based on the understanding of current and expected future environmental conditions (giving regard to the state of knowledge, and trends, emerging issues, or technologies). This would include taking into consideration:

- national and international best practice
- processes applied by similar environmental regulators
- identifying new environmental values and guiding options for indicators and objectives for those values.

The advice from the ERSTAG forms one input into a broader statutory decision-making process to review and develop the ERS, as outlined in Figure 1.

The ERSTAG has no delegated authority for decision making. The role of the ERSTAG is limited to the provision of advice and/or options analysis. The role of making recommendations to Government for the development, amendment, retention or revocation of the ERS and guidance remains the role of EPA. The Terms of Reference of the TAG are provided in Appendix 1.

The advice of ERSTAG is provided through a report to the TAG Chair who subsequently briefs the EPA Executive Leadership Team (ELT) to inform decision making. An ERSTAG report can form the basis of recommendations to Government to consider development, amendment, retention or revocation of the ERS. This advice would also be used to support any future public consultation that may be required to support Government making fit-for-purpose ERS.

EPA undertakes each of the steps illustrated in Figure 1, having regard to the principles of environment protection set out in Part 2.3 of the Act:

- Principle of integration of environmental, social, and economic considerations – environmental, social, and economic considerations should be effectively integrated.
- Principle of proportionality – a decision, action or thing directed towards minimising harm or a risk of harm to human health or the environment should be proportionate to the harm or risk of harm that is being addressed.
- Principle of primacy of prevention – prevention of harm to human health and the environment is preferred to remedial or mitigation measures.
- Principle of shared responsibility – protection of human health and the environment is a responsibility shared by all levels of government and industry, business, communities, and the people of Victoria.
- Principle of polluter pays – persons who generate pollution and waste should bear the cost of containment, avoidance, and abatement.
- Principle of waste management hierarchy – waste should be managed in accordance with the following order of preference, so far as reasonably practicable: avoidance, reuse, recycling, recovery of energy, containment, and waste disposal.
- Principle of evidence-based decision making – actions or decisions under the Act should be based on the best available evidence in the circumstances that is relevant and reliable.
- Precautionary principle – if there exist threats of serious or irreversible harm to human health or the environment, lack of full scientific certainty should not be used as a reason for postponing measures to prevent or minimise those threats.
- Principle of equity – all people are entitled to live in a safe and healthy environment irrespective of their personal attributes or location. People should not be disproportionately affected by harm or risks of harm to human health and the environment. The present generation should ensure the state of the environment is maintained or enhanced for the benefit of future generations.
- Principle of accountability – members of the public should:

- have access to reliable and relevant information in appropriate forms to facilitate a good understanding of issues of harm or risks of harm to human health and the environment and of how decisions are made under the Act
- be engaged and given opportunities to participate in decisions made under the Act, where appropriate to do so
- have their interests considered in decisions made under the Act.
- Principle of conservation – biological diversity and ecology integrity should be protected for purposes that include the protection of human health.

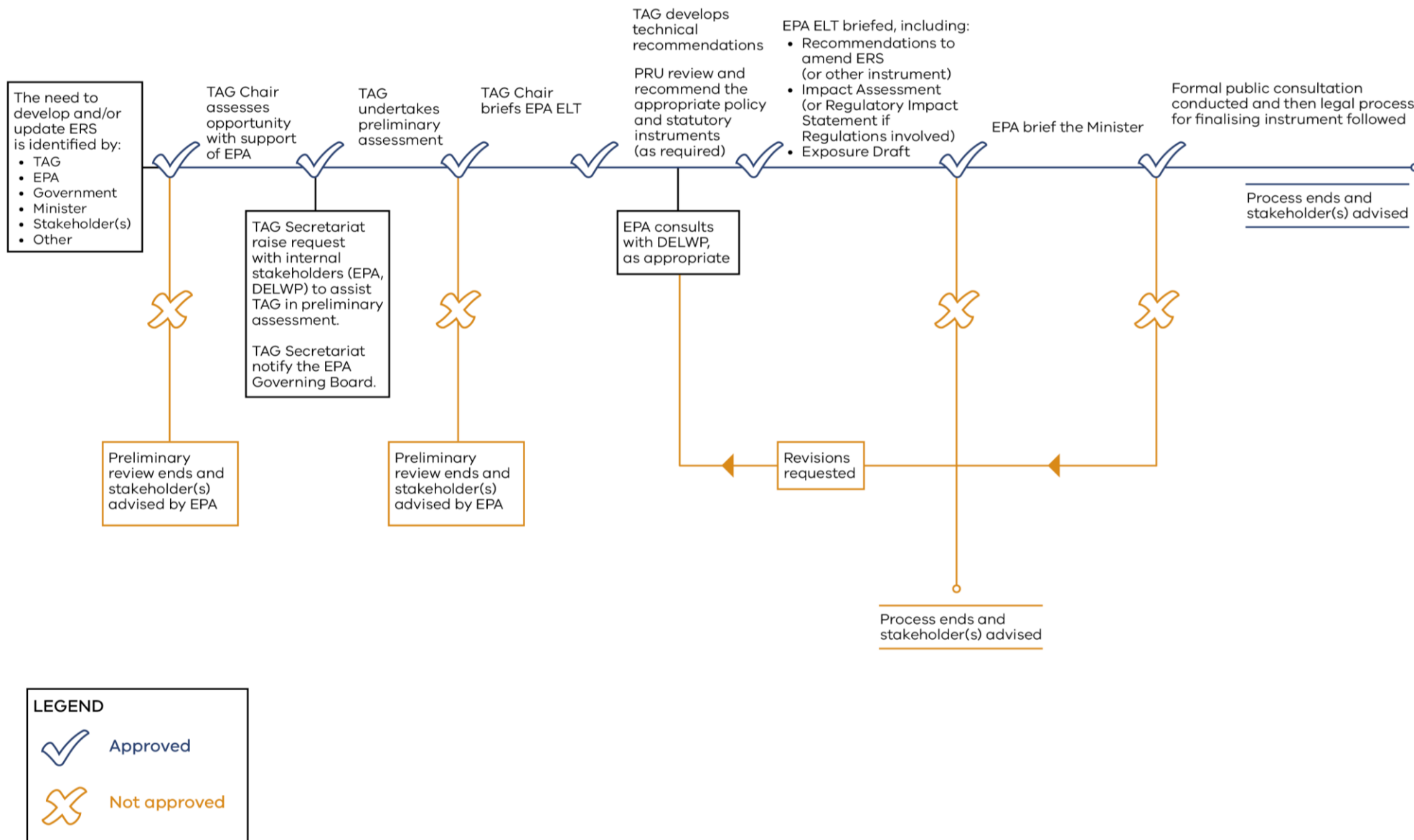


Figure 1 – ERS review and amendment process

Forward Plan for ERS review and amendment

The Chief Environmental Scientist (CES) undertook an assessment of the scientific underpinnings of the first ERS and provided 16 recommendations for future review and amendment. EPA has worked closely with the ERSTAG to prioritise these recommendations to inform the Forward Plan for ERS review and amendment, presented in Table 1.

EPA and the ERSTAG applied the following supporting principles to define priority areas:

- Risk – to both human health and environment.
- Use – commonality, how often a pollutant has been analysed for and/or been detected in the environment.
- Need – an indication of the need for environmental values, indicators and objectives for regulatory work and community/stakeholder concerns.

In addition to the matters set out in the Forward Plan in Table 1, EPA will continue to consider additional areas for ERS review and amendment, in accordance with Figure 1.

EPA will also continue to advocate for standards for the protection of environmental and public health at a national level through committees such as the National Health and Medical Research Council, Food Standards Australia New Zealand, the National Chemicals Working Group, enHealth and others.

Table 1 Forward Plan: priority areas for ERS review and amendment*

Priority	#	Recommendation
<i>For action in the next 1-4 years, or as determined by EPA</i>	11	Prioritise contaminants for inclusion in the ERS and undertake review and development of the relevant standard(s).
	4	Review the need for indicators and objectives to be developed for climate systems.
	6	Current standards for ozone, nitrogen dioxide and sulfur dioxide have been reviewed at a national level. The numeric values agreed to via the National Environment Protection Measure (NEPM) process should be automatically adopted in the ERS.
	12	The methodology and current established standards for ecological investigation levels (EILs) will need to be reviewed for their applicability to the Victorian context and given the passage of time since their establishment.
	15	Review the establishment of short-and long-term site-specific water quality objectives for microbial contamination.
	16	Review and develop indicators and objectives to address priority emerging contaminants in water and the knowledge gaps described in Appendix E of the State Environment Protection Policy (Waters) Monitoring, Evaluation and Reporting framework (https://www.water.vic.gov.au/__data/assets/pdf_file/0014/400721/MER-Framework.pdf).
	2	An odour indicator and objective are recommended to be developed and included in the ERS.

Priority	#	Recommendation
	13	Review of objectives set out for the environmental value Food, Flora and Fibre.
<i>For action in the next 5-9 years or as determined by EPA</i>	3	Guidance is developed on design ground level concentrations for air pollutants for predictive modelling and assessment activities.
	5	A review is undertaken to establish whether ambient air toxic values, indicators and objectives can be set based on the current NEPM reporting criteria.
	9	That the objective for human tranquillity and enjoyment outdoors in natural areas is an acoustic quality that will need to be determined for each location as required.
	14	Investigate the feasibility of establishing an EIL value for the protection of agricultural ecosystems including indicators for plant health and soil integrity for agricultural land settings.
<i>For review in as part of the 10-yearly process, or as determined by EPA</i>	7	That a review be undertaken as to whether an environmental value for ambient sound that focuses on biodiversity protection can be defined and whether qualitative or quantitative indicators and objectives can be developed for inclusion in the ERS.

* Note:
 Recommendation 1 was to develop guidance on the application of ERS including applicable measurement methods. This has been progressed separately by EPA and not captured here.

Similar to recommendation 1, recommendation 10 was focussed on development of guidance developed on risk assessment methodologies. This guidance will be progressed separately by EPA and is not captured here.

Recommendation 8 was to develop an ERS for indoor sleep. This ERS was removed following agreement from the Commissioner for Better Regulation that it was no longer applicable.

Appendix 1 – ERSTAG Terms of Reference

Function

The ERSTAG will support EPA in its decision making for any future revision, or addition, to the ERS through the provision of independent, high quality, technical and evidence-based advice on matters of ERS and supporting guidance. This includes:

- whether the indicators and objectives set out in the ERS are and continue to be appropriate
- options to revise and refine the indicators, objectives and segments based on the understanding of environmental conditions needed to achieve or maintain the environmental values (giving regard to the state of knowledge, and trends, emerging issues or technologies). This would include taking into consideration:
 - national and international best practice
 - processes applied by similar environmental regulators
- identifying new environmental values and guiding options for indicators and objectives for those values

The ERSTAG does not have delegated authority for decision making and is created primarily to provide specialist skills and knowledge to support the EPA's decision making. The role of the ERSTAG is limited to the provision of advice and/or options analysis. The role of making recommendations to Government for the creation or revision to the ERS and guidance remains the role of EPA.

In addition to the advice received from the ERSTAG, EPA may solicit focussed technical input from other expert and/or advisory scientific groups. The ERSTAG Chair, EPA's Chief Environmental Scientist, may invite representatives from other technical groups, government agencies, non-government organisations or other relevant partners to address with specific scientific issues, as needed.

The advice of ERSTAG is provided through a report to the ERSTAG Chair who subsequently briefs EPA ELT to inform decision making. An ERSTAG report can form the basis of recommendations to Government to consider amendment or addition to the ERS. This advice would also be used to support any future public consultation that may be required to support Government making fit-for-purpose standards.¹

The ERSTAG will be supported by relevant scientific and regulatory expertise primarily from ASD, and with support from PRU. Both ASD and PRU will be observers to TAG meetings.

Role of the ERSTAG Chair

The role of the ERSTAG Chair is to:

- establish the ERSTAG
- convene ERSTAG
- facilitate and support effective ERSTAG outcomes
- endorse recommendations for priority review/advice matters
- report on the status of items under consideration by the ERSTAG

¹ As required by the *Subordinate Legislation Act 1994*.

- serve as a liaison between the ERSTAG and EPA.

EPA, with advice from the ERSTAG Chair, will determine what policy issues and information should be brought to the attention of the ERSTAG. The ERSTAG Chair serves as an ambassador for EPA and represents EPA in ERSTAG meetings.

Representation

ERSTAG members play a critical role in ensuring the reputation of EPA as a science-based regulator. The ERSTAG will serve in their professional capacity and represent a broad range of areas of knowledge and experience covering environmental protection and human health.

A member of the ERSTAG must have expertise in one or more of the following categories and between them the members of the ERSTAG must have acknowledged expertise in:

- air
- land
- noise
- water
- public health
- environmental and human health risk assessment.

The membership of the ERSTAG shall seek to reflect a representation of:

- professional affiliation (that is, academia, medical profession, research institute, and governmental bodies including public health departments and regulatory authorities)
- major areas of interest (for example waste control, disease, epidemiology research and safety)
- industry.

Consideration will also be given to ensuring appropriate geographic representation and gender balance.

The members of the ERSTAG can include:

- Chair, Chief Environmental Scientist
- up to three senior government scientific officers, such as the Chief Health Officer
- two or more representatives who are not employed by the Government and may include industry, community, key stakeholders or others.

The ERSTAG will be supported by a ERSTAG secretariat, administered by the Office of the Chief Environmental Scientist.

The ERSTAG members, excluding the Chair, shall be recommended to the CEO of EPA by the ERSTAG Chair for approval of membership. All new nominations as well as renewals and discontinuation of membership will be approved by the CEO of EPA on advice of the ERSTAG Chair. Members shall be appointed to serve for an initial term of three years.

Prior to membership and/or renewal of a term, nominees and members of the ERSTAG shall be required to complete a declaration of interest. In addition, all ERSTAG members will be required to sign a confidentiality agreement prior to confirmation of their membership.

All papers presented to the ERSTAG, which may include copies of research reports, or documents of commercial significance, shall be treated as confidential. ERSTAG deliberations are confidential and may not be disclosed, unless they primarily impact the determination of an ERS.

Membership can end for any of the following reasons:

- failure to attend two consecutive meetings
- change in affiliation resulting in conflict of interest
- a lack of professionalism, for example, a breach of confidentiality.

Meetings and operational procedures

The frequency of ERSTAG meetings will be determined by the combination of the volume, complexity and urgency of advice sought. In addition to attending the ERSTAG meetings, members will be expected throughout the term, and as necessary, to participate in sub-working groups, video and telephone conferences as well and interactions via email. In some cases, the ERSTAG Chair may meet with members on an individual basis, rather than in a formal meeting. ERSTAG members may also be requested to participate as observers in other EPA or cross-departmental meetings.

Minutes of the TAG meetings will be taken and circulated among members by the ERSTAG Secretariat.

Decisions or recommendations will be taken by consensus. The ERSTAG Chair will determine who must be present for decisions to be made, including whether proxies are appropriate.

ERSTAG members will not be remunerated for their participation, however, costs such as travel expenses will be compensated by EPA in accordance with government policy.